

About Universities

GMRITDU: Established in 1997, GMR Institute of Technology has grown steadily with a strong focus on academic excellence and ethical values, earning wide recognition for its quality education and consistent performance. In January 2026, it was notified as a Deemed to be University sponsored by GMRIT Foundation (section 8 Company) under Section 3 of the UGC Act, 1956, by the Ministry of Education, Govt. of India. GMRITDU provides its learning community state-of-the-art facilities, infrastructure and a competent faculty. The Institute encourages collaborative learning between industry and academia as a means of reinforcing its curriculum with practical and real-world experiences. All UG programs are accredited by NBA and the institute is accredited by NAAC with 'A' grade. GMRIT University has gained international recognition through its inclusion in THE World University Rankings and THE Impact Rankings across several Sustainable Development Goals (SDGs).

SAHE: Velagapudi Ramakrishna Siddhartha Engineering College (VRSEC), founded in 1977, was the first private engineering college in united Andhra Pradesh. Offering B.Tech., MTech., MBA, and MCA programs, VRSEC maintains quality standards with NBA accreditation in five cycles since 1998 and adopted OBE in 2013. The institute received NAAC 'A+' grade in 2021 and ISO certification. VRSEC gained autonomous status in 2006, extended to 2028. Recognized among India's top engineering institutions, the college has ranked within top 200 in NIRF rankings for seven years. In 2024, VR Siddhartha Engineering College transformed into 'Siddhartha Academy of Higher Education, a deemed-to-be university under UGC Act by Ministry of Education. Siddhartha Academy of Higher Education offers programs through schools of Engineering, Management, Law, Science, and Arts & Commerce, providing various UG & PG degrees.

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Resource Persons

Dr. K. Ramji, Vice-Chancellor, Krishna University, AP

Topic: Digital Twin in Mechanical Engineering

Dr. K. Prakash Babu, Asst. Professor, Depart. of ME, SAHEDU

Topic: Introduction to Generative AI and Applications in Mechanical Engineering

Dr. M. Vyunkunta Rao, Associate Professor, Dept of ME, GMRITDU

Topic: Industry 4.0: Transformative Journey of Manufacturing System

Dr. T.R. Vijaya Babu, Associate Professor, Dept. of ME, GMRITDU

Topic: AI Assisted Engineering simulation and Design

Dr. K. Venkata Rao, Associate Professor, NITTTR-Kolkata

Topic: Smart manufacturing and Intelligent Automation

Dr. B.M.V.A. Raju, Associate Professor, Dept of ME, NIT -Puducherry

Topic: AR/VR for Smart Manufacturing



GMRIT Deemed to be University

Conducting 5-day Online
Faculty Development Program in
Collaboration with
Siddhartha Academy of Higher Education
(Deemed to be University)

Titled

**Generative AI, Digital Twins and
Smart Manufacturing:
Transforming Next-Generation
Mechanical Engineering**

12th to 16th October 2026

Organized by

Departments of Mechanical Engineering



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About the Departments

Departments of Mechanical Engineering, School of Applied Engineering, GMRITDU: The Department of Mechanical Engineering, established in 1997, is an NBA-accredited (Tier 1) department and offers B.Tech with intake of 120, M.Tech (Thermal Engineering) with intake of 12 and a Ph.D. programme. It offers a CBCS curriculum aligned with Outcome-Based Education (OBE), fostering innovation, problem-solving and professional excellence through experienced faculty and a vibrant academic environment. The department has a strong research ecosystem supported by advanced laboratories, enabling cutting-edge work in advanced manufacturing, thermal engineering, materials, design, and automation. Faculty and students actively undertake funded projects, interdisciplinary research, publications, patents, and consultancy, promoting a culture of innovation and scientific inquiry. Industry internships and experiential learning bridge theory and practice, while the department's consistent achievements in placements, research, and innovation reflect its commitment to developing skilled engineers and researchers.

Department of ME, SAHE: The Department of Mechanical Engineering, established in 1977, offers a B.Tech with an annual intake of 120 and an M.Tech in Automated Manufacturing Systems with an intake of 12. As one of the largest departments, it has a strong faculty team of 39 members, including 26 Ph.D. holders. The B.Tech program has been NBA-accredited four times. The curriculum integrates conventional engineering principles with emerging technologies and is regularly updated to align with industry needs. The department has vibrant research groups working in metal matrix and natural fiber composites, alternative fuels, heat transfer, CFD, FEA, machine condition monitoring and fault diagnostics, robotics, additive manufacturing, tribology and process optimization, fostering innovation and industry-relevant research.

About the FDP

The Faculty Development Program titled "Generative AI, Digital Twins, and Smart Manufacturing: Transforming Next-Generation Mechanical Engineering" aims to provide a comprehensive understanding of emerging technologies transforming mechanical engineering. Over five days, participants will explore Generative AI applications in engineering design, Digital Twin technologies for simulation and predictive maintenance, and AI-driven smart manufacturing and intelligent automation. The program will also focus on practical applications, research opportunities, case studies, and emerging trends, enabling participants to integrate these technologies into teaching, research, design, and industrial applications.

Objectives

- Understand Generative AI fundamentals and applications in mechanical engineering.
- Explore Digital Twin technologies for simulation, monitoring, and predictive maintenance.
- Implement smart technologies for intelligent manufacturing systems
- Understand AI-driven smart manufacturing and intelligent industrial automation technologies.
- Explore AR/VR applications in smart manufacturing.

Topics Covered

- Introduction to Generative AI and Applications in Mechanical Engineering
- Digital Twin in Mechanical Engineering
- Industry 4.0: Transformative Journey of Manufacturing System
- Smart manufacturing and Intelligent Automation
- AR/VR for Smart Manufacturing

Contact Persons

Dr. Ch. Vinod Babu	: 9490202448
Dr. M. Vykunta Rao	: 7382098868

Eligibility

All interested Faculty, Research Scholars, PG Students, and Industry Personnel.

Registration Details

Faculty, Research Scholars, PG Students	: Rs. 300/-
Industry Participants	: Rs. 500/-

Bank Account Details for Payment

Account	:	Indian society of Technical Education GMRIT Chapter
Bank Name	:	Union Bank of India



(Please upload payment receipt copy along with the UTR number while doing registration)

Registration Link

<https://tinyurl.com/bwxfx5y5>

Quiz and Certificate

Quiz will be conducted at the end of the FDP. The certificate will be issued for those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the quiz.