#### **About the FDP**

The Faculty Development Program (FDP) on "Modern Trends and Technologies in Mechanical Engineering" is designed to provide faculty members, researchers and industry professionals with insights into the latest developments and innovations across core and interdisciplinary areas of Mechanical Engineering. With rapid advancements in design, manufacturing, materials, thermal sciences and automation, this FDP aims to enhance the technical knowledge and teaching methodologies of participants. The program includes expert lectures, hands-on sessions, and case studies covering emerging topics such as additive manufacturing, smart materials, energy systems, computational methods, robotics and sustainability in engineering practices. Participants will gain exposure to real-world applications and research trends that are shaping the future of Mechanical Engineering. This FDP serves as a platform for knowledge sharing and professional development, encouraging collaborative learning and academic excellence in the ever-evolving field of Mechanical Engineering.

## **Objectives**

The FDP is focused on the following key objectives:

- To provide an overview of recent advancements in core areas of Mechanical Engineering.
- To explore modern manufacturing technologies including additive manufacturing and Industry 4.0 practices.
- To introduce innovations in materials engineering and their industrial applications.
- To enhance knowledge in thermal systems, fluid mechanics and energy conversion technologies.
- To understand advancements in computer-aided design, simulation and analysis tools.
- To discuss automation, robotics and control systems relevant to applications of mechanical engineering.
- To examine interdisciplinary trends and research opportunities in sustainable engineering and smart systems.

#### CLOs:

• To understand the recent advancements and research trends in core areas of Mechanical Engineering.

- To explore emerging technologies in design, manufacturing, thermal engineering and materials science.
- To apply modern tools and simulation techniques used in mechanical system analysis and optimization.
- To develop interdisciplinary perspectives for solving real-world engineering problems through innovation and sustainability.

#### COs:

- Participants will gain comprehensive knowledge on emerging technologies and trends in mechanical engineering.
- Participants will be equipped to enhance teaching, research and project-based learning aligned with modern engineering practices.

#### Who can attend?

The program is open to faculty members, research scholars and postgraduate students from AICTE-approved institutions, as well as industry professionals.

The number of participants is limited to 50, and registration will be accepted on a first-come, first-served basis.

# **How to Register for FDP?**

Eligible candidates have to register through the following link on or before 10<sup>th</sup> June 2025.

https://forms.gle/2NhZAKkSsFofFXkc9

There are no charges for registration, course materials, or certification.

# **Confirmation of Participation & Certificates**

Upon registration, confirmation will be sent via email to selected participants by 12<sup>th</sup> June 2025.

The detailed schedule will be shared exclusively with confirmed participants through email and WhatsApp.

One Week Offline Faculty Development Program on

# "MODERN TRENDS AND TECHNOLOGIES IN MECHANICAL ENGINEERING"

16th - 20th June 2025

Organized by
Dept. of ME, UCE, JNTUK, Kakinada
In association with
Dept. of ME, Vishnu Institute of Technology,
Bhimayaram





# Coordinators Dr. D. Linga Raju, Professor, Dept. of ME, UCE, JNTUK Dr. K Anupama Francy, Associate Professor, Dept. of ME, VITB



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#### About JNTUK, Kakinada

Jawaharlal Nehru Technological University, Kakinada (JNTUK), established in 2008, is a premier institution offering UG, PG, and Ph.D. programs in Engineering, Pharmacy and Management. With jurisdiction over 11 districts and more than 150 affiliated colleges, JNTUK is known for its strong academic foundation, industry collaboration and emphasis on research and innovation. The university supports advanced learning through dedicated R&D centers, updated curricula and partnerships with national platforms like NPTEL and IISc.

#### About Dept. of ME, UCE

The Department of Mechanical Engineering, UCE-JNTUK, established in 1946, stands as one of the oldest and most prestigious departments of the university. Renowned for its academic rigor and research orientation, the department offers B.Tech, M.Tech, and Ph.D. programs. With a strong focus on innovation and industry collaboration, it actively conducts Faculty Development Programs to upskill faculty, researchers and professionals in emerging areas of thermal, materials, manufacturing, design, and sustainable engineering.

#### **About VIT-Bhimavaram**

Vishnu Institute of Technology, Bhimavaram (VITB) was established in 2008 by Sri K.V. Vishnu Raju under the aegis of Sri Vishnu Educational Society, founded by Padma Bhushan Dr. B.V. Raju. VITB is approved by AICTE and affiliated to JNTUK, Kakinada. It holds NBA, NAAC 'A++' grade (3.51/4), has autonomous status since 2019, and has received prestigious awards including the Ramakrishna Bajaj National Quality Award and the APQO Best in Class Award.

# About the Dept. of ME, VITB

The Department of Mechanical Engineering at VITB, established in 2010, offers UG, PG and PhD programs. The undergraduate program is accredited by the NBA. With advanced training through Centres of Excellence like Robotics Lab, NI LabVIEW Academy, Vehicle Technology Lab and DRONE

Centre, the department emphasizes innovation beyond the curriculum. It regularly organizes conferences, FDPs, and workshops. Backed by experienced and dynamic faculty, ME students actively participate in national-level competitions like SAE BAJA and e-bike events, showcasing strong technical and practical skills.

#### **Chief Patrons**

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Dr. N. Naga Krishna, Professor & Head, Dept. of ME, VITB

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Dr. K. Anupama Francy, Assoc. Professor, VITB

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Dr. P. Subba Rao, Director, FDC, JNTUK

# **Co-Chairperson**

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#### **Co-Ordinators**

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Dr. K. Anupama Francy, Associate Professor, Dept. of ME, VITB

#### **Co-Coordinator**

Dr. I Ramu, Professor, Dept. of ME, VITB

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Dr. D. J. Nagendra Kumar, HoD-IT, VITB

Dr. N. Padmavathy, HoD-ECE, Dean-R&D, VITB

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Dr. V. Rama Devi, HoD-BS, VITB

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Dr. Inala Ramu, Professor, VITB

Dr. S. Venkata Sai Sudheer, Associate Professor, VITB

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Mr. M. Praveen, Associate Professor, VITB

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