



MLRITM

2024

DEPARTMENT OF MECHANICAL  
ENGINEERING

ZENITH



"Transforming Ideas into Engineering Excellence"

# Vision of the Department

The Mechanical Engineering Department strives to foster innovation, excellence, and leadership in education and research, advancing sustainable development globally.

## Mission of the Department

DM1: To provide innovative and sustainable technology solutions to solve a wide range of complex scientific and technological challenges in the Mechanical Engineering field.

DM2: To enhance employability, leadership skills, and research capabilities through industry collaboration and experiential learning.

DM3: To nurture students as ethical and resilient professionals committed to lifelong learning.

DM4: To promote excellence in emerging interdisciplinary fields to support sustainable global progress.



# ABOUT MECHANICAL ENGINEERING

The Department of Mechanical Engineering at Marri Laxman Reddy Institute of Technology and Management was established in 2009 and offers B.Tech and M.Tech (CAD/CAM) programs. The department boasts a highly qualified faculty engaged in innovative research, regularly publishing papers in national and international journals. It organizes seminars and workshops on advanced topics and maintains strong Industry-Institute interaction, conducting short-term courses for professionals.

Students receive hands-on training in well-equipped laboratories, including Heat Engines, Automation, Metrology, Heat Transfer, Fuel Testing, Machine Tools, Material Science, Vibration, and Industrial Engineering labs. The CAD/CAM laboratory features state-of-the-art hardware and software. Additionally, the department has a sprawling workshop with machine shop, foundry, smithy, sheet metal, plumbing, welding, fitting, and carpentry sections.

With a focus on academic excellence, research, and industry collaboration, the department prepares students for successful careers in engineering, research, and consultancy.



# HOD'S MESSAGE

*The Mechanical Engineering Department at Marri Laxman Reddy Institute of Technology and Management, Dundigal, Hyderabad, offers UG and PG programs with a specialization in CAD/CAM. Committed to excellence, the department equips students with advanced technological skills for careers in industry, research, and academia.*

*With a strong foundation in mathematics, science, and engineering, students engage in team projects, leadership roles, and professional ethics.*

*The department fosters lifelong learning and industry interaction through SAEINDIA and IEI memberships, enabling participation in competitions and collaborations with professionals, faculty, and peers from other institutions for holistic development.*

*With Best Wishes,*

**Dr. U. Sudhakar**

**Head - Department of Mechanical Engineering  
Marri Laxman Reddy Institute of Technology and Management  
Dundigal, Hyderabad.**

**Mail: [hodmech@mlritm.ac.in](mailto:hodmech@mlritm.ac.in)**

**Mobile : +91-99128 96727**



# DIRECTOR SIR MESSAGE



***DR. P. SRIDHAR***



*At MLRITM, we champion an educational philosophy that transcends conventional learning, rooted in Outcome-Based Education and shaped around the aspirations of every student. Our approach empowers learners to think with clarity, act with purpose, and create with conviction. Our campus ethos is anchored in sustainability, harmonizing innovation with ecological mindfulness through conscious green practices and environmental stewardship. The institution thrives through dynamic community clubs that foster leadership, empathy, and belonging, alongside a strong entrepreneurial spirit. Through a robust incubation ecosystem, learners transform ideas into impactful, socially responsible innovations.*



# PRINCIPAL SIR MESSAGE



***DR. R. MURALI PRASAD***

Welcome to Marri Laxman Reddy Institute of Technology and Management (MLRITM), where excellence in education, research, and innovation is our priority. At MLRITM, we are committed to shaping future engineers and leaders by providing a holistic learning environment that integrates technical expertise, industry collaboration, and ethical values.

With state-of-the-art infrastructure, experienced faculty, and strong industry partnerships, we ensure our students gain practical knowledge and real-world problem-solving skills. Our focus on research, entrepreneurship, and global exposure prepares graduates for successful careers in an evolving technological landscape.

We encourage students to think critically, innovate, and lead in their respective fields. Join us in our journey toward academic and professional excellence, and be part of a community that drives technological advancements and societal progress.



# Programme Educational Objectives

**PEO 1:** To develop a strong foundation in mechanical engineering principles for analyzing, designing, and innovating engineering solutions.

**PEO 2:** To equip graduates with skills and knowledge to address industry challenges and contribute effectively to societal needs.

**PEO 3:** To foster the ability to collaborate across multidisciplinary teams while upholding professional ethics and responsibility.

**PEO 4:** To promote lifelong learning, adaptability, and leadership skills for continuous personal and professional growth in a dynamic environment.

## Programme Objectives

**PO1:** Independently carry out research/investigation and development work to solve practical problems.

**PO2:** Write and present a substantial technical report/document.

**PO3:** Demonstrate a degree of mastery in Advanced Design and Manufacturing Technologies, including comprehensive knowledge of design methods, 3D printing processes, and related tools to support modern manufacturing.

**PO4:** Solve complex engineering challenges using computational and digital manufacturing tools, considering global issues and perspectives.

**PO5:** Apply advanced knowledge, techniques, and skills along with CAD/CAM technologies to address engineering and manufacturing challenges, emphasizing innovation and sustainable development.

**PO6:** Engage in life-long learning and professional development to adapt to evolving technologies and industry practices.



# CHAIRMAN SIR MESSAGE

## **MARRI LAXMAN REDDY - Chairman**

SriMarri Laxman Reddy, Founder Chairman of Marri Educational Group, has been dedicated to quality education for 17 years. He established MLRITM in 2009 and founded MLR Institute of Technology, MLR Institute of Pharmacy, and St. Martin's institutions. A renowned athlete, he continues to inspire academic excellence.



# SECRETARY SIR MESSAGE

Mr. M. Rajasekhar Reddy, Founder Secretary of MLR Institute of Technology, is a visionary leader dedicated to academic excellence. Inspired by his father, he established Institute of Aeronautical Engineering and other institutions. Committed to industry-oriented education, he strives to make MLRITM a leading brand and ensure top placements for students.



# TEACHER'S DAY CELEBRATIONS



**Teachers' Day** was celebrated with great enthusiasm at MLR Institute of Technology and Management (MLRITM) to honor the invaluable contributions of the teaching faculty. The event began with a heartfelt speech and the traditional lighting of the lamp. Students organized various cultural performances, fun games, and appreciation activities to express their gratitude towards their mentors. Faculty members were felicitated with tokens of appreciation and warm wishes. The celebration highlighted the vital role of teachers in shaping students' futures and building a strong academic foundation. It was a joyful and memorable occasion, strengthening the bond between teachers and students.



# WORKSHOP ON COMPUTER AIDED ENGINEERING GRAPHICS



A workshop on *Computer Aided Engineering Graphics (CAEG) through AutoCAD* was conducted at MLR Institute of Technology and Management (MLRITM) by the Department of Mechanical Engineering. The workshop aimed to enhance students' practical understanding of engineering drawing using AutoCAD software. Expert resource persons guided students through various 2D and 3D modeling techniques. Participants learned about orthographic projections, isometric views, and dimensioning. The session was highly interactive and provided hands-on experience, greatly benefiting the students' technical skills.



## HONORING ACADEMIC EXCELLENCE – PH.D. CONVOCAATION CEREMONY OF HOD



A heartfelt Ph.D. convocation ceremony was held to honor our respected HOD Sir for successfully completing his doctoral degree. The event was filled with pride and admiration as faculty and students congratulated him on this remarkable achievement. His dedication to research and academic excellence serves as an inspiration to all. The college community celebrated this proud moment, recognizing his hard work, perseverance, and contribution to the field.



# Colorful Celebration of Bathukamma Festival at MLRITM



*The Bathukamma festival was celebrated with great enthusiasm at MLR Institute of Technology and Management (MLRITM), showcasing the vibrant culture of Telangana. Female students and staff dressed in traditional attire and participated in arranging beautiful floral stacks called Bathukammas. The campus was decorated with flowers and colorful rangoli, creating a festive atmosphere. Traditional songs and dances added charm to the celebration. Faculty and students joined hands to preserve and promote the cultural heritage. The event reflected unity, joy, and respect for tradition. It was a memorable and lively occasion that brought the entire college community together in celebration.*



# TRADITIONAL DAY CELEBRATION AT MLRITM - EMBRACING CULTURE AND UNITY



**Traditional Day** was celebrated with great enthusiasm at MLR Institute of Technology and Management (MLRITM), with the Mechanical Engineering Department taking the lead. The event highlighted India's rich cultural diversity, as students and staff dressed in vibrant traditional attire representing various regions. A special focus was given to the celebrations of Ramadan and Bonalu, showcasing communal harmony and cultural unity. A symbolic Bonalu procession was conducted, with girls carrying decorated pots and dancing to folk beats. Simultaneously, students also shared the significance of Ramadan, promoting understanding and respect for Islamic traditions.



# TRADITIONAL DAY CELEBRATION AT MLRITM - EMBRACING CULTURE AND UNITY



*Traditional food, music, and performances added life to the occasion. The entire campus buzzed with festive energy and joy. Faculty members appreciated the students' efforts in organizing such an inclusive celebration. The event fostered unity, respect, and awareness of different cultures among students. It was a memorable day filled with color, tradition, and togetherness at MLRITM.*



# *Best wishes for completing AICTE - QIP PG Program*



**Dr. SURYAPRAKASHRAO  
GURRAM**



**Dr. JANI PRAMELA  
STANLY KOCHAPPA**



**Dr. SUDHAKAR  
UPPALAPATI**



**Dr. KALAVALAPUDI  
VEERARAGHAVULU**



**Dr. SRAVANTHI  
KUNDURU**



**Mrs. CHAITHANYA  
KALANGI**



**Mr. Nalla Kiran**



**Mr. PALLA SATYA  
KRISHNA**



**Mr. S. Kurumurthy**



**Mr. CH. SUNIL**

Faculty of Mechanical Engineering at MLRITM successfully completed a six-month AICTE QIP programme on AI and ML, enhancing skills in emerging technologies and promoting research-driven teaching practices.



# BEST WISHES



**MARRI LAXMAN REDDY**  
**INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(b) of the UGC act, 1956

Department of Mechanical Engineering

*Congratulations*



**Elite**

Hearty congratulations to **Mrs. CH. Sridevi** for successfully completing the **NPTEL** course.

[www.mlritm.ac.in](http://www.mlritm.ac.in)



**MARRI LAXMAN REDDY**  
**INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(b) of the UGC act, 1956

Department of Mechanical Engineering

*Congratulations*



Hearty congratulations to **Mr. S. Kurumurthy** for successfully completing the SWAYAM course

*Data Science Using Python*

[www.mlritm.ac.in](http://www.mlritm.ac.in)



# **List of M. Tech Publications**

<b>Student Details</b>	<b>Title of the Paper</b>	<b>Name of the Journal/Conference</b>
R. Divyesh 227Y1D0401	Exploring the mechanical behavior and microstructure of AA7075/B C/ZrN hybrid composite fabricated through powder metallurgy techniques	Springer Interactions
K. Karthik 227Y1D0402	Optimization of TIG welding parameters and filler rod material selection for dissimilar aluminum alloy joints	Journal of Materials Science: Materials in Engineering
A. Rajesh 227Y1D0403	Development AA7075/SiC/ZrN hybrid composite fabricated through powder metallurgy techniques and evolution its microstructural and mechanical properties	Springer Interactions



# ***Student Participations in Conferences***

<b>Student Name</b>	<b>Roll No.</b>	<b>Conference Name</b>	<b>Organizing Institute</b>
R. Divyesh	227Y1D0401	International Conference on Sustainable Materials, Manufacturing & Automation (ICSIMMA 2024)	Kalasalingam Academy of Research and Education, Tamil Nadu
A. Rajesh	227Y1D0403	International Conference on Sustainable Materials, Manufacturing & Automation (ICSIMMA 2024)	Kalasalingam Academy of Research and Education, Tamil Nadu



# Events

## Career Opportunities in CAD/CAM and Industry 4.0



The Department of Mechanical Engineering, MLRITM, in association with TASK (Telangana Academy for Skill and Knowledge), organized an online awareness session on “Career Opportunities in CAD/CAM and Industry 4.0” on 10th February 2025. The session was delivered by Mrs. N. Swathi, HR & Training Lead, TASK, who provided valuable insights into emerging career opportunities in computer-aided design, manufacturing, automation, digital engineering, and smart manufacturing technologies. Students gained an understanding of Industry 4.0 concepts, required technical skills, employment prospects, and future industry trends, helping them prepare for successful careers in modern manufacturing and engineering sectors.



# Events

## Workshop : Design Now



The Department of Mechanical Engineering at Marri Laxman Reddy Institute of Technology and Management (MLRITM) successfully hosted a "Two Day Workshop on Design Now" on January 3rd and 4th, 2025. Organized in association with ICT Academy, the event commenced at 10:00 AM.

The workshop was led by Mrs. Kotha Kalyani, Lead Technical Trainer, who provided expert guidance on modern Computer-Aided Design (CAD) methodologies. Participants engaged in hands-on sessions focusing on advanced 3D modeling and engineering simulation. This initiative aimed to bridge the gap between academic theory and industrial application, equipping students with essential technical skills for the evolving design landscape.



# Events

## Emerging Trends in Automotive Design and Simulation



The seminar successfully enhanced students' understanding of automotive design and simulation technologies. It provided valuable exposure to modern engineering tools and practices, helping students bridge the gap between academic knowledge and industry requirements. The session also motivated students to explore career opportunities in automotive design and analysis domains.

