



MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
(Autonomous Institution – UGC, Govt. of India)

DEPARTMENT OF CSE (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

REPORT ON INTERNAL MSME HACKATHON

07th July 2025

Event Details:

The **MSME Hackathon 2025** is a prestigious national initiative aimed at driving innovation among young technocrats by engaging them in solving real-world challenges faced by micro, small, and medium enterprises (MSMEs). This platform empowers students to propose sustainable, impactful, and technologically sound solutions for the evolving needs of India's MSME sector.

To contribute to this mission, the **Department of CSE (Artificial Intelligence and Machine Learning)** at **Malla Reddy College of Engineering & Technology (MRCET)** conducted an **Internal MSME Hackathon** on **07th July 2025** for second- and third-year B.Tech students. The internal round followed the guiding theme:

1. Low-Carbon Footprint Solutions/Technologies

Encourage MSMEs to adopt decentralized, low-energy solutions suited for rural and semi-urban environments. Ideas under this theme address clean energy, energy-efficient retrofits, and sustainable industrial practices to minimize environmental impact.

2. Stealth, Surveillance, and Cyber Defense Technologies

Innovate around India's national security by proposing stealth UAVs, low-observable materials, electronic warfare tools, and AI-enabled surveillance systems. Solutions may also include AR/VR-based combat simulations or dual-use civilian applications.

3. Innovation in Adoption of Industry 4.0 & 5.0 in the MSME Ecosystem

Help MSMEs transition toward smart manufacturing and digital transformation. Ideas include:

- Plug-and-play automation kits
- Digital twin platforms
- Human-centric Industry 5.0 solutions
- GIS-based tools for accessing industrial infrastructure

4. **Innovation for Business Upliftment and Sustainability in Coastal and Hilly Areas**

Design climate-resilient, scalable, and cost-effective systems that cater to MSMEs in geographically sensitive regions. This includes:

- AI-powered risk forecasting
- Decentralized logistics
- Early warning systems
- Local resource-based entrepreneurship

5. **Smart and Resilient Supply Chains**

Reinforce MSME supply chains by improving agility, transparency, and resilience. Project ideas may include:

- AI-based demand forecasting
- Digital twin-based supply chain simulation
- IoT-enabled smart warehouses
- Supplier-buyer matchmaking platforms

JuryPanel:

The jury comprised esteemed faculty members, The panel evaluated each team's problem statement, solution feasibility, innovation, and presentation. Selected teams were recommended for further rounds of the **MSME Hackathon 2025**, representing MRCET at the next level.

This internal hackathon not only offered students an opportunity to exhibit their technical and problem-solving abilities but also promoted collaboration and real-world engagement with MSME challenges. The event reinforced the importance of bridging classroom learning with impactful societal applications.

Photos Gallery

