Event Report

Title of the Event: ATAL FDP – "AI & ML-Driven Robotics: Perception, Planning, and Autonomous Control System"
Dates: 28th July 2025 – 2nd August 2025
Organized by: Dr. G. Amanath & Dr. D. Rupa Kumar
Institution: Marri Laxman Reddy Institute of Technology and Management (MLRITM)

The Marri Laxman Reddy Institute of Technology and Management successfully hosted a prestigious ATAL Faculty Development Program (FDP) on "AI & ML-Driven Robotics: Perception, Planning, and Autonomous Control System" from 28th July 2025 to 2nd August 2025. The FDP aimed to enrich faculty knowledge and research capabilities in emerging robotic technologies integrated with Artificial Intelligence (AI) and Machine Learning (ML).

The program focused on key aspects of intelligent robotic systems such as sensor-based perception, path planning algorithms, autonomous navigation, and real-time decision-making. Subject matter experts from academia and industry delivered insightful lectures and case studies on advanced robotic platforms, robotic vision systems, and computational intelligence techniques used for autonomous control.

Hands-on sessions and demonstrations were arranged to familiarize participants with simulation tools and robotics development environments, enabling them to apply ML models to robotic applications. The sessions empowered faculty to understand the challenges involved in robotics deployment, including environmental uncertainties, obstacle detection, and dynamic control strategies.

Throughout the six-day program, participants engaged in interactive discussions, project-oriented tasks, and collaborative learning experiences that strengthened their practical exposure and innovative thinking. The FDP emphasized the importance of robotics in modern industries such as manufacturing, defence, healthcare, and smart automation, encouraging faculty to incorporate these advancements into research and curriculum development.

The FDP concluded with a valedictory ceremony where certificates were distributed to all participants. The organizing committee appreciated the support of the management, resource persons, and participants for their contribution to the program's successful execution.

Overall, the ATAL FDP served as a valuable platform to enhance professional skills and promote technological advancements in the field of Robotics, AI, and Machine Learning, aligning with the institute's vision of academic excellence and future-ready education.