

Workshop on

# Introduction to AI and ML

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## Report:

The Introduction to AI and ML workshop was conducted on 11th February 2025 by Dr. Vidya G S, Associate Professor, and Department of Biomedical Engineering at TKM Institute of Technology, organized by the IEDC as a part of INSIGHT. The event aimed to introduce participants to the fundamental concepts of Data Science, Artificial Intelligence (AI) and Machine Learning (ML) while providing practical insights into their real-world applications. A total of 78 students attended the session, eager to explore the potential of AI-driven technologies.

The workshop began with an overview of AI, ML, and data science. Participants explored different learning approaches, understanding how supervised methods rely on labeled information, unsupervised techniques identify patterns in unstructured data, and reinforcement learning improves decision-making through trial and feedback. A brief introduction to neural networks was also provided, emphasizing how machines can learn and adapt to data. To enhance understanding, real-world examples were used, demonstrating how AI is already transforming various sectors. One of the examples discussed during the session was AI-driven bus route optimization, where machine learning models analyze traffic patterns and passenger demand to improve efficiency in public transportation systems.

The session included a discussion on the step-by-step process of building and deploying an AI model, allowing participants to gain an understanding of the workflow involved. This interactive approach kept the session engaging and encouraged students to ask questions, fostering a dynamic learning environment.

The event concluded with a discussion on industry use cases and future career opportunities in AI and ML. The participants expressed enthusiasm about the session, with many showing interest in further exploring AI applications. Overall, the workshop successfully provided a foundational understanding of AI and ML, equipping students with valuable knowledge to explore the field further.



