

**Project Title:**

AI-Based Predictive Maintenance

Problem Statement:

Traditional maintenance depends on fixed schedules but this may not reflect the real condition of machines therefore there is a need for an AI-based system that uses sensor data to predict machine health and support better maintenance decisions

Objective of the Project:

The objective of this project is to develop an AI-based predictive maintenance system that predicts the Remaining Useful Life (RUL) of engines using sensor data and supports maintenance decision-making

Short Introduction about the Project:

This project uses Artificial Intelligence to improve maintenance planning it will use the NASA C-MAPSS dataset which contains sensor readings from turbofan engines a deep learning model will analyze these readings to predict the Remaining useful Life of each engine based on the prediction the system can help identify risk level and suggest suitable maintenance actions

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