Predictive Maintenance Analytics Dashboard

Engine Temperature (°C)

100.40

70.00   120.00

Critical: Temperature too high!

Recommendation: Check cooling system immediately.

Brake Pad Thickness (mm)

3.20

1.00   10.00

Warning: Plan for replacement soon

Recommendation: Inspect and replace within 30 days.

Tire Pressure (PSI)

32.00

20.00   50.00

Optimal pressure range

Recommendation: No action required.

System Health Analysis

Remaining Useful Life

RUL (days)

46.50

Anomaly Status

Status

Anomaly Detected

Health Score

Score

60/100

Maintenance Predictions

Predicted Maintenance Type: Repair

Maintenance Recommendations

• Check cooling system immediately.

• Schedule brake pad replacement soon.

• Plan for maintenance within 90 days.

• Investigate potential issues based on anomaly indicators.

• Schedule maintenance to improve system health.

Model Performance Evaluation

LSTM Model (RUL Prediction)

RUL Prediction R^2

0.867

Random Forest (Anomaly Detection)

Accuracy

0.5091