

Predictive Asset Maintenance

Business Objective



- The solution was implemented for an Energy Distribution company to measure the individual asset health score for all sites and predict accurately the timeline for taking recommended actions to prevent an asset from going into unexpected failure or unwanted downtime.

Benefit



- Provides a detailed root cause analysis for a predicted failure, precise timeline prediction for acting upon the recommended actions to prevent unwanted downtime for the asset.

Expected Outputs



- An asset score based on a set of technical parameters. The detailed analysis of each of these parameters. The recommended actions, severity of problem is determined by statistical modelling.

Data Used

- Historic machine data for each asset, failure root causes, actions taken to restore assets from failure, first symptom observation to failure timeline.

Design

- Analyzes the data for correlation analysis of parameter changes with failure
- Root cause analysis and determine action steps for solving each issue.

Output

- Predictive Analytics to determine the severity, timeline and reason for a potential failure of an asset in a site.
- Descriptive Analytics to check historical behavior of asset.

Benefits

- Relative prioritization/ severity calculation for same asset facing several problems because of different parameter combinations.

Arrived at accurate root cause analysis, recommended action, problem severity and current asset health score

