

Enable Predictive Maintenance using Vegam Condition Monitoring Solution(vCMS)



Monitor your critical assets in real time continuously using cloud based condition monitoring solution. Predict equipment failure and plan maintenance before the occurrence of failure.

Predictive Maintenance

- Continuous, online monitoring of assets
- Real time measurement using connected sensors
- Smart wireless industrial IoT sensors
- Data stored in the cloud or on premise server
- Visualization of real time and historical data
- In-built analytical algorithm for failure detection
- Alerts on abnormal health of equipment

Helps in...

- Early identification of failures using machine data patterns
- Prevent unplanned breakdowns
- Minimize maintenance and repair costs by preventing unnecessarily maintenance
- Resource Optimization-Optimal use of inventory and spare parts by performing maintenance activities only when necessary



**Easy to deploy
Smart and robust
IoT Sensors**



**Real time and
historical data on
cloud/On premise**



**AI/ML based algorithm
for failure detection**

Case Study - Indias largest integretd steel plant



As-is Operation

- Multiple critical assets operating in various plants such as Sinter, Coke Oven, Power, Furnace, Hot & Cold Rolling Mills
- Continuous & complex operations carried out in high temperature & hazardous environment
- For asset reliability, vibration data is captured once in a month for all critical assets
- Difficult to predict failures of assets in the real time



Problem Statement

- Unplanned breakdowns of critical asset during the production
- Breakdowns result in loss of productivity and quality (Holding time impact and rework)
- Significant impact to the production schedule & product delivery



Vegam deployed Condition Monitoring Solution comprising of **vSens Sensors**, **vGateway** and **vCMS**



Vegam Condition Monitoring Solution vCMS deployed with 20 vibration & temperature sensors mounted on 20 assets that were critical for production



The solution provided real time alerts for abnormal machine conditions using vibration data patterns, and laid the basis for predictive maintenance



Solution Offered



Solution could be extended to predict machine failure by using AI/ML based predictive analytics.

Outcome



25% Reduction in breakdown for the rolling mill



20% reduction in maintenance cost



15% improvement in overall productivity for the rolling mill