

Predictive Maintenance

# How NS Envision™ helped to drive success in Operational Technologies

DCM Shriram



Dashboard solution for chemical industry (Sugar) which provide critical KPIs and helped in reliability and reducing the Opex cost.

# Predictive Maintenance in the Process and the Manufacturing Industries

DCM Shriram Ltd, is having sugar manufacturing unit at Ajbapur, Rupapur, Hariawan and Loni, in Hardoi District of Uttar Pradesh. The production facilities have co-generation power plants, based on bagasse, a sugar by-product. They have an installed co-generation capacity of 155 MW, out of which supply some renewable energy to the national grid and the rest is for captive use. Each of these units has invested in state-of-the-art technology that gives one of the best manufacturing efficiencies in the country.

## Challenges

Loss of productivity due to down time due to Motor/ Pump's bearing fault, bearing life, shaft miss alignment, looseness and manual data vibration data but not able to predictive the downtime.

## Solutions

Utilizing a series of smart wireless sensors, Machine Learning techniques, and AI algorithms, continuously monitor the health of the selected equipment, identify faults at a very early stage and notify the user.

Continuous monitoring of the machines and its replacements will give insight on the life of the components. Pump bearing fault, bearing life, shaft alignment, looseness.



## Benefits

1. Avoided downtime which lead to significant cost saving.
2. Digitally enabled Proactive Services.
3. Improve the reliability of the M/Cs.
4. Reducing staff time on reporting.
5. Increasing reliability and reducing operational cost.

**Partner:** Sensor Vendor



*“ We have increased the visibilities in our system and equipment health all of these helped improve our reliability and reduce our operational cost”*

**CTO**

DCM Shriram , INDIA

## Stories

Before implementing the **NS Envision™** (IIOT Platform) the critical equipment was going down abruptly such as Plumber blocks, Motors and Pumps and the reason was not known , the attempt has been put to analyses the root cause with the vibration data which collected manually but it was no giving satisfactory results.

By bringing **NS Envision™** (IIOT Platform) Dashboard solution the probability of critical equipment going down is known in advance with Smart Sensor and Data Analytics Solutions. We have been able to create real time display and automate reports that help create an ease of access to previously difficult data and also just eliminate huge time spend on the report.

Dashboard source the current production health of the equipment's and different data from different system and integrated data from the different source point and making available across the enterprise.

Digital transformation helped DCM Shriram to improve the productivity and reduce the down time.



# Dashboard Overview

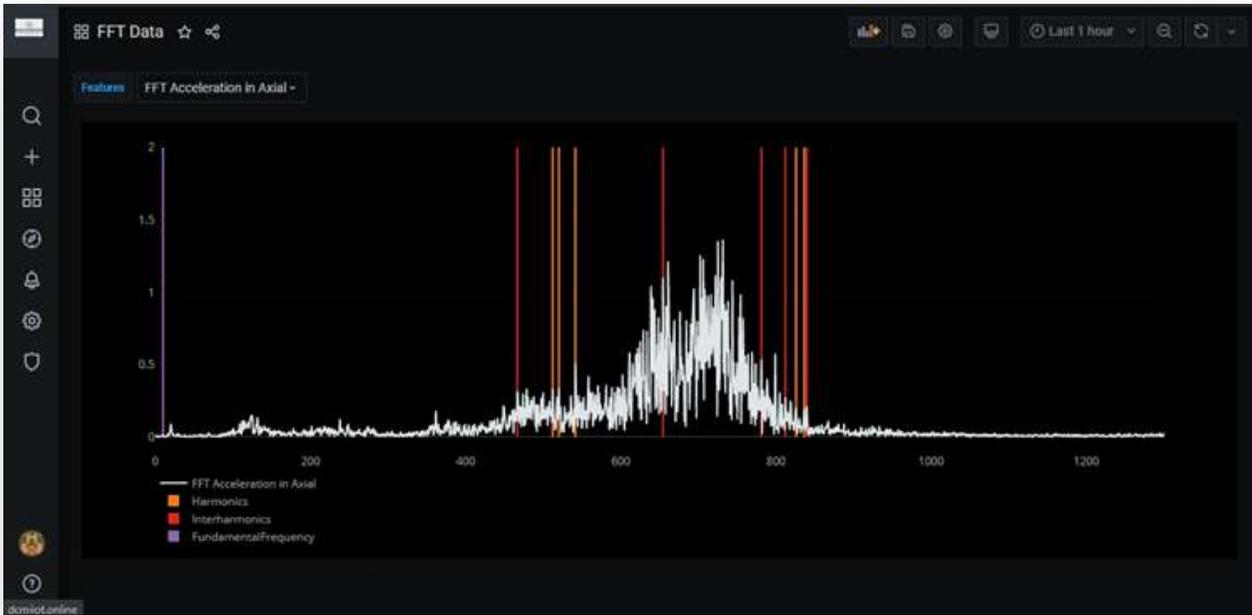
## Equipment Overview Dashboard



## Equipment Overview Dashboard



### FFT - Acceleration in Axial



### Equipment Overview Dashboard





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