

Predictive Analytics Solution Steel Industry Application

Solutions originating from the shop floor comprised of factory automation (FA) and Edge IT systems, leveraging the knowledge of shop floor and cutting-edge technologies to achieve the overall optimization of manufacturing.

e-F@ctory Promotes an “Open” Shift in order to accelerate collaboration and innovation in the manufacturing for Greater Sustainability

Process Improvements

A steel works comprises processes from unloading of raw materials, iron-making, steel-making, rolling, etc. down to product shipment, and is composed of a wide variety of plant equipment. The iron- and steel-making equipment is characterized as follows:

- Being subject to intensive stress such as high temperature, high loads, corrosive conditions, and wear;
- Working round the clock every day;
- Dealing with many types of products of high dimensional accuracy and high material quality;
- Being large in size and complicated in structure and often not easily accessible for servicing.



Solution:

Mitsubishi Electric's Predictive Analytics Solution not only detect the anomalies in the vibration data but also guide where is the abnormalities through it's Fast Fourier Transform Algorithm and ensure production equipment operational at it's optimal level

Problem Statement:

To always keep the facilities in a stable working order and reduce the costs of maintenance under the above conditions, predictive maintenance, or condition-based maintenance is essential.

Benefits:

- Reduce Production losses by 10%
- Reduce equipment maintenance cost by 10%
- Significant improvement in Labour Safety

