

# Case Study

Real-Time Monitoring of ID and FD Fans in a 500MW Thermal Power Generation Plant





# Case Brief

## Customer Requirement

There were frequent bearing failures in FD & ID fans at the utility boiler section of the power plant causing frequent unplanned stoppages. Though the unit was equipped with a vibration analyzer, the failures couldn't be predicted during their periodic vibration analysis.

The maintenance engineering team deputed SANDS to perform vibration analysis and to assess the health of the fans.

## Solution

At the site, We studied the trend of past vibration data, failure history and the maintenance activity logs. We installed ARGUS Sensors at all the bearing points to monitor the fans 24x7 online with an automatic data collection frequency of 5 minutes. The vibration data spectrum was analyzed in-depth and the defects frequencies were identified causing the frequent bearing failures. A detailed diagnostic report was submitted along with recommendations and solutions. The maintenance engineering team performed corrective actions as per SANDS recommendations.

## Result

The corrective action as per SAND's recommendations was implemented and vibration data collected post corrective actions indicated normal vibration data within limits. The problem is rectified resulting in increased reliability, Machine availability and lower maintenance/spare costs.



# About Us

Signals & Systems (India) Private Limited, known by the brand name SANDS, is primarily a technology company, developing and manufacturing niche-technology products using embedded technology for the Industrial segments, Generation, Transmission & Distribution segments of the Power Industry. On the Services front, we specialize in Meter Data Analytics for Power Distribution companies, to curb energy thefts and help in revenue protection. We also undertake online testing of energy meters on behalf of the utilities as part of the regulatory requirements.

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