VIBstudio Wind

EC SYSTEMS

Wind turbine condition-monitoring systems

Increasing the productivity and profitability of wind generation

Advanced analytics deliver unrivalled monitoring and diagnostic accuracy

Identify early symptoms of damage

Optimise maintenance schedules

Improve turbine availability

Reduce failures and downtime

Increase lifetime of turbine assets

Improve diagnostics and prognostics

The challenge

Reliable, resilient, timely monitoring of wind turbines

Achieving high levels of turbine availability while optimising maintenance costs is fundamental to a profitable wind-energy business.

Condition-monitoring systems (CMS) can protect wind turbines from unexpected shutdowns, diagnose problems, and reduce planned and unplanned downtime, but often struggle with data quality in extreme and variable operating conditions. The result is slow, inaccurate results that lead to wasteful false alarms and delayed responses. VIBstudio Wind from EC Systems uses vibration-based analysis to overcome these problems to improve the overall performance and profitability of each installed turbine.

The solution

Improved diagnostics from vibration signals and advanced data analysis

VIBstudio Wind from EC Systems is an intelligent platform for wind turbine condition monitoring and diagnostics. Deploying high-quality data acquisition and automatic, real-time data validation techniques, it analyses vibration signals to provide precise, independent information about the condition of a wind turbine's electrical and mechanical components.

VIBstudio Wind consists of three components: a monitoring unit embedded in a wind turbine's nacelle; an intuitive browser through which maintenance engineers can monitor events; and a central database for large installations.

With its robust, flexible hardware and modular architecture VIBstudio Wind can be used to increase availability and productivity of individual turbines and entire wind farms, both on- and off-shore.

Key features

VIBstudio Wind is a condition monitoring, safety and diagnostics solution that features:

Superior data quality and analytical capabilities for accurate, consistent and timely diagnostics

Advanced data handling, data export and storage of historical data to support trend analysis

Intuitive and configurable browser for remote event monitoring, data viewing, and administration

Highly scalable, modular architecture for monitoring single turbines or an entire enterprise

Easy access from any location worldwide to enable remote monitoring of multiple sites

Compatibility with third-party systems in an integrated maintenance and repair operation

EC SYSTEMS

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To discuss how VIBstudio Wind can enhance your business, contact us at
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The value

Improved productivity and profitability for wind farm operators

The VIBstudio Wind platform enables wind farm operators to identify the early symptoms of malfunction or damage in a wind turbine, and to compare information on the current state of the machine to the historical data to make prognoses for the future. It helps reduce downtime, increase safety, eliminate unnecessary preventative component replacement, and extend the lifetime of valuable assets.

The result is improved productivity and profitability. Analysis shows that VIBstudio Wind reduces failures and downtime by up to 70 per cent, decreases maintenance costs by up to 20 per cent, and increases the lifetime of monitored machines by up to 30 per cent.