Advanced Condition-Monitoring for Optimised Maintenance of Critical Equipment

Maintenance is the major operational cost for renewable energy plant. Condition monitoring provides major economic benefits in terms of plant availability, maintenance optimisation and safety.

Competitive advantage

- Extensive experience in condition-monitoring and condition-based maintenance for critical equipment in wind, solar-thermal, hydroelectric and fossil-fuel plants
- Able to integrate wear and vibration analysis to monitor machine condition and predict the remaining life of critical assets
- Cutting-edge diagnostic and prognostic tools to inform maintenance decision makers
- World-renowned research group with expertise in vibration and wear debris analyses

Impact

- Targeted maintenance creates massive cost savings, increases asset availability, and enhances personnel safety with early detection and prediction of failures in rotating machine systems

Successful applications

- Hydraulic instability detection for hydro-turbines
- Detection and prediction of gear faults for wind turbine planetary and spur gears, helicopter gearboxes, and planetary gears and bearings; aero-engine bearing diagnostics
- Maintenance optimisation for concentrated solar power plants
- Monitoring of pump wear

Capabilities and facilities

- Capabilities in terms of fault detection, diagnostics and prognostics are supported by:
- Test rigs with diagnostic and prognostic capabilities –

More Information

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