# Abnormal noise from wind turbine generator bearings

Abstract--This paper proposes a model-based fault diagnosis approach for wind turbines and its application to a realistic wind turbine fault diagnosis benchmark. The proposed fault diagnosis ...

Firstly, a study of the typical failure modes of wind turbine bearings was conducted to provide a comprehensive overview of the tribological problems and the effects of the bearings.

The presented method is applied to weak fault detection of wind turbine in the accurate diagnosis part of condition monitoring and fault diagnosis system, and the vibration data generated ...

First, this study collected and simulated environmental noise under the realistic working conditions of wind turbine rotating bearings, which was mixed with a public dataset to construct ...

The idea of indicative fault diagnosis based on measuring the wind turbine tower sound and vibration is presented. It had been reported by a wind farm operator that a major fault on the ...

In this study, an artificial-intelligence-based method was developed for bearings fault diagnosis using acoustic signals with convenient capture, collection, and transmission.

At present, the problems faced in the fault diagnosis of wind turbine turntable bearings are: (1) The bearing speed is very low, and the calculated fault frequency is very low. The high-pass filter will filter ...

This paper discusses the work carried out to develop methodology for identifying faults in a wind turbine generator bearing using interpretable machine learning models and using the results ...

To address this issue, this work proposes a WGU-Net (Wave-GRU-U-Net) signal denoising network to resolve the background noise problem in acoustic signal acquisition for the rotating bearings of wind ...

This paper takes wind turbine bearings as the research object and provides an overview and analysis for realizing fault warnings, avoiding bearing failure, and prolonging bearing life.

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