Non-destructive testing of wind turbine blades

This paper presents results from the use of ultrasonic non-destructive testing (NDT) measurements of subsurface blade topography arising from in-situ and static blade inspection for a ...

This study presents a foundational step in a broader initiative aimed at leveraging thermal imaging technology to enhance wind turbine maintenance, particularly focusing on the challenges of ...

Inspection methods based on vibration analysis, thermography, X-ray imaging, acoustic emission and ultrasound are reviewed.

This paper applies bibliometric analysis to classify existing blade damage detection methods, comparing major non-destructive testing techniques, including strain data monitoring, ...

His current research interests include nondestructive testing (NDT) techniques for detecting internal defects in wind turbine blades and thermal flux prediction for heat absorbers. Pei ...

Within this paper, 3 different NDT techniques for the inspection of manufactured wind turbine blades" spar caps are compared: terahertz inverse synthetic aperture radar, infrared ...

This paper presents a survey about the most important and updated condition monitoring techniques based on non-destructive testing and methods applied to wind turbine blades.

The trend in damage detection in wind turbines is moving towards methods that offer full capabilities, long-range, contactless, non-destructive, wireless, and online monitoring.

Non-destructive testing (NDT) techniques have become essential in detecting defects, preventing failures, and extending the service life of turbine components. At NDT AND PWHT ...

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Five non-contact NDT techniques, including thermography, radiography, machine vision, laser shearography testing, and microwave testing, are appraised to inspect wind turbine blade ...

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