

Xuefei Wang
Research Only
EEE - Academic & Research



Overview

Dr Xuefei Wang currently works as a postdoctoral research associate in mooring analysis and design for offshore wave energy converter (WEC) survivability and fatigue (MoorWEC) project at The University of Manchester, supervised by Prof Peter Stansby and Dr Long Zhang. He is also one of the members of the Wind Turbine Pitch Bearing and Blade Laboratory at the University of Manchester.

His research focuses on investigating advanced data-driven methods including but not limited to time-frequency analysis, intelligent control, machine and statistical learning, system identification methods etc. and their applications in industrial renewable energy area. His particular research interests lie in wind and wave energy applications, for example, wind turbine blades condition assessment and fault diagnosis, fatigue lifetime prediction and wave energy converter design, modelling and analysis.

Email: xuefei.wang@manchester.ac.uk

Qualifications

Doctor of Philosophy, Data-driven methods and their applications in wind energy, The University of Manchester
2018 → 2022

Master of Science, Advanced Control and Systems Engineering, The University of Manchester
2017 → 2018

Bachelor of Science in Engineering, Automation Science, Beihang University (BUAA)
2012 → 2016

Employment

Research Associate

Research Only

EEE - Academic & Research

The University of Manchester

1 Sep 2022 → present

Research outputs

Real-Time Remaining Useful Life Prediction of Cutting Tools Using Sparse Augmented Lagrangian Analysis and Gaussian Process Regression

Qin, X., Huang, W., Wang, X., Tang, Z. & Liu, Z., 30 Dec 2022, In: Sensors. 23, 1, p. 413

Remaining Useful Life Estimation of Cutting Tools Using Bayesian Augmented Lagrangian Algorithm

Wang, X., Liu, Z. & Lu, E., 1 Jun 2022, p. 1165-1169.

Wind Turbine Blades Fault Detection Using System Identification Based Transmissibility Analysis

Wang, X., Zhang, L. & Heath, W., 1 Mar 2022, In: Insight: Non-Destructive Testing and Condition Monitoring. 64, 3, p. 164-169

Wavelet Package Energy Transmissibility Function and Its Application to Wind Turbine Blade Fault Detection

Wang, X., Liu, Z., Zhang, L. & Heath, W., 1 Feb 2022, In: IEEE Transactions on Industrial Electronics.

Acoustic Emission Analysis for Wind Turbine Blade Bearing Fault Detection Under Time-Varying Low-Speed and Heavy Blade Load Conditions

Liu, Z., Yang, B., Wang, X. & Zhang, L., 6 Feb 2021, (Accepted/In press) In: IEEE Transactions on Industry Applications.

Wind Turbine Blade Bearing Fault Diagnosis Under Fluctuating Speed Operations via Bayesian Augmented Lagrangian Analysis

Liu, Z., Tang, X., Wang, X., Mugica, J. E. & Zhang, L., 11 Jul 2020, (Accepted/In press) In: IEEE Transactions on Industrial Informatics.

Wavelet Energy Transmissibility Analysis for Wind Turbine Blades Fault Detection

Wang, X., Zhang, L. & Heath, W., 25 Jun 2020, *IEEE Xplore*. IEEE

Fault Diagnosis of Industrial Wind Turbine Blade Bearing using Acoustic Emission Analysis

Liu, Z., Wang, X. & Zhang, L., 6 Jan 2020, (Accepted/In press) In: IEEE Transactions on Instrumentation and Measurement .

Prizes

Neil Munro Prize

Wang, Xuefei (Recipient), Dec 2018