

PROFILE

1. Second year Ph.D student at Nanjing Tech University, China; Studying Mechanical Engineering, focusing on the fault diagnosis for wind turbine gearbox
2. Participated in multiple enterprise projects; 20+ personal awards, such as Pacemaker to Merit Student at Nanjing Tech university', 'Excellent Student Cadre at Nanjing Tech University'.
3. In June 2017, attended the first World Congress on Condition Monitoring in London and made a presentation about wind turbine gearbox fault prediction.

EDUCATION

Sep., 2016 – Now	Nanjing Tech University Continuous study for a Ph.D degree, chemical process machinery Focusing on the fault diagnosis for wind turbine gearbox
Sep., 2014 – Jul. 2016	Nanjing Tech University Master, Mechanical Engineering& Automation
Sep., 2010 – Jul. 2014	Nanjing Tech University Bachelor, Mechanical Engineering

PROJECTS

Key Technology Research and Demonstration of Intelligent Operation and Maintenance of Large Wind Farms: Fault prediction of key components of wind turbine. (2015BAA06B03)(2016-2018)

Description

2015 Project of National Science and Technology Support Program; Research on Intelligent Operation and Maintenance of wind turbine.

Contribution

1. Based on fault data, established fault feature library of wind turbine gearbox.
2. Proposed some intelligence algorithms, Such as signal denoise, feature extraction, fault diagnosis and prognostics, life Prediction.
3. Developed health condition monitoring device of wind turbine drive train based on embedded compactRIO platform where intelligence algorithm was implanted into.
4. Developed offline health condition monitoring system of wind turbine drive train based on PC platform and MATLAB.

Fault Prognostics and Health Management of Wind Turbine Based on Large Data (KYCX17_0938)(2017-2019)

Description

Postgraduate Research & Practice Innovation Program of Jiangsu Province and Natural Science Research Program Major Project of Jiangsu Province;

Research on:

1. Non-stationary vibration signal denoising method of wind turbine drive train.
2. Multi-source fault diagnosis of wind turbine drive train.
3. Fault prediction method for multi-sensor multidimensional signal under different operating conditions.
4. Preventive maintenance planning model for condition monitoring of wind turbine.

Maanshan Fangyuan Rotary Bearing Co., Ltd: 3MW wind turbine yaw and pitch bearing comprehensive performance testing machine.(2016-2018)

Description

Autonomous project of enterprise; Research on performance and fatigue test wind turbine pitch and yaw bearing.

Contribution

1. Designed test and control system 3MW wind turbine yaw and pitch bearing comprehensive performance testing machine.
2. Based on LabVIEW of upper computer and PLC200-Smart of lower computer, developed hydraulic control system and auto-loading system.
3. Based on LabVIEW of upper computer and compactDAQ of lower computer, developed test acquisition system, signal analysis system of vibration and noise data.

Nanjing High Accurate Drive Equipment Manufacturing Group Co., Ltd: Development of Comprehensive Performance Test Bench for Wind Turbine Yaw and Pitch Reducer Gearbox.(No.NGC-FK16051)(2016-2017)

Description:

Autonomous project of enterprise; Research on performance and fatigue life of wind turbine yaw and pitch reducer gearbox.

Contribution:

1. Designed comprehensive performance test bench for wind turbine yaw and pitch reducer gearbox.

2. Based on LabVIEW of upper computer and PLC300 of lower computer, developed control acquisition system, meeting loading requirements of multiple domestic and foreign wind turbine manufacturers, such as Goldwind, Envision, United Power, GE and Senvion.

Nanjing Tech University: Development of Comprehensive Performance Test Bench for industrial gearbox.(2015-2016)

Description:

Autonomous project of Jiangsu Province Key Laboratory of Industrial Equipment Manufacturing and digital control technology; Research on the comprehensive performance of industrial gearbox.

Contribution:

1. Designed comprehensive performance test bench for industrial gearbox.
2. To achieve the integration of test and control, developed test and control system based on LabVIEW of upper computer and compactRIO of lower computer, where FPGA module is used to acquire high-frequency signal, and real-time module is used to acquire low-frequency signal and output control signal.

AWARDS

The second prize of "Innovation Cup" Extracurricular Academic and Technical Works Competition for University Students of Nanjing Tech University. (2016)

Description: The work named "An Evaluation System and Method of Health Condition for Wind Turbine drive train" mainly describes the method of monitoring the health condition of wind turbine drive train

The first prize of 8th Practice and Innovation Competition of Process Equipment Technology for University Students in China. (2017)

The third prize of 4th Petroleum Equipment Innovative Design Competition for China Postgraduate. (2017).

Description: The work named "Intelligent Evaluation System of Health Status for Wind Turbine Drive Train Based on Big Data" mainly describes the method of monitoring the health condition of wind turbine drive train based on deep learning and big data.

Nanjing Tech University Special Graduate Scholarship. (2014, 2015)

Nanjing Tech University Special PhD Scholarship. (2016)

Nanjing Tech University Principal scholarship. (2016)

Description: Reward students with excellent grades

SKILLS

Software: LabVIEW Matlab STEP7-Micro Abaqus MySQL AutoCAD Pro-E SolidWorks
Photoshop Maple

Programming: Visual Basic C Language