CV

Name Peixuan Ding **Birth** 1995/08 **Tel/Wechat** 188-4082-2295
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Address Zhuhai, Guangdong, China **Position applied** lecturer/postdoctoral

EDUCATION

Phd in Control theory and engineering, Dalian University of Technology | 2025
Master in Space science and technology, China Academy of Space Technology | 2020
Bachelor in Automation, Dalian Maritime University | 2017

PUBLICATIONS

Thesis: Deep Learning-based Fault Diagnosis and Model Safety Research on Rotating Machinery (Supervisor: Prof. Xi-Ming Sun)

Articles:

- "A Novel Feature Separation Weight Rectified Network for Mechanical Fault Diagnosis Under Partial Domain Adaptation", IEEE Transactions on Industrial Informatics, SCI, JCR Q1, IF 11.7, First author
- "Multitask Learning for Aero-Engine Bearing Fault Diagnosis With Limited Data", IEEE Transactions on Instrumentation and Measurement, SCI, JCR Q1, IF 5.6, First author
- "A novel deep learning approach for intelligent bearing fault diagnosis under extremely small samples", Applied Intelligence, SCI, JCR Q2, IF 3.4, First author
- "Self-Supervised Learning Denoising Network For Intelligent Fault Diagnosis With Limited Labeled Data", 2023 38th Youth Academic Annual Conference of Chinese Association of Automation (YAC)，EI, Corresponding author

Patents: 1 granted "An aero-engine rolling bearing fault diagnosis method based on siamese network" and 4 under substantive examination.

RESEARCH PROJECTS

Research on basic technology of fault characteristics of propulsion power transmission system
Cooperation organization: Shenyang Aeroplane Design Institute
Algorithm development of vibration signal monitoring and diagnostic technology, solving the problem of network training with insufficient samples, formulating the experimental plan for the gearbox test bed, collecting the data, data processing and result analysis, writing the final reports.

Proprietary technology for aircraft transmission health monitoring
Cooperation organization: Guangzhou Hangxin Aviation Technology Co.,LTD
Project application, identification of vibration signal failure indicators, development and implementation of a complete test programme, analysis of vibration signal data, preparation of a mid-term assessment reports.

SKILLS

Data analysis and deep learning: Proficiency in Matlab for data pre-processing and analysis; proficiency in Python development for neural network model algorithms using pytorch architecture.

Teamwork: Supervised 4 undergraduate students and 2 master students; Write more than ten fund project applications, mid-term and final assessment reports; Responsible for the research, purchase, installation, operation and maintenance of the high-speed bearing test platform.

Academic activities: Reviewer for IEEE Transtractions on Aerospace and Electronic Systems, Neural Computing and Applications; Member of Chinese Association of Automation (CAA).

Personal homepage: Peixuan-ding.github.io

Homepage