




# Feiyang Pan

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 Hefei, China

## Education

SEP 2022 –  
PRESENT



**University of Science and Technology of China (USTC)**  
Division of Precision Machine and Precision Instrument, School of Engineering Science  
Research Topic: *Ultrasound System and Ultrasound Imaging Algorithm*  
GPA: 3.96/4.30, rank 6/132

SEP 2018 –  
JUN 2022



**University of Electronic Science and Technology of China (UESTC) & University of Glasgow (UoG)**  
B.Sc. in Electronic and Information Engineering, Glasgow college, UESTC  
Research Topic: *Fault Diagnosis Algorithm Design for Industrial Equipment*  
GPA: 3.87/4.0, rank, 21/231, First Class Honours Degree

## Research Interests

- Signal/Image Processing and Artificial Intelligence:** denoising method, object detection.
- Prognostics and health management (fault diagnosis, anomaly detection):** intelligent sensor method, ultrasound method, simulation and modeling.

## Publications

- Pan, F.,** Liu, Z., Ren, L., Yang, L., & Zuo, M. Ensemble fault detection based on magnetic flux leakage images with noise robustness for steel wire ropes. (under review)
- Pan, F.,** Liu, Z., Ren, L., & Zuo, M. (2023). Adaptive local flaw detection based on magnetic flux leakage images with a noise distortion effect for steel wire ropes. *IEEE Transactions on Industrial Electronics*. (IF = 7.7)
- Pan, F.,** Huang, Y., Ren, L., & Liu, Z. (2023, October). Inspection of Wire Ropes Based on Magnetic Flux Leakage Images by Using YOLOv5. In *2023 Global Reliability and Prognostics and Health Management Conference (PHM-Hangzhou)* (pp. 1-7). IEEE.
- Pan, F.,** Ren, L., Zhou, J., & Liu, Z. (2022, March). Fault classification based on computer vision for steel wire ropes. In *Journal of Physics: Conference Series* (Vol. 2184, No. 1, p. 012035). IOP Publishing.

## Research Experience

SEP 2020 –  
PRESENT

**Research Assistant**  
**School of Mechanical and Electrical Engineering, UESTC**

Design fault diagnosis algorithms for non-destructive testing of steel wire ropes under complex noise condition. Simulate the magnetic flux field by Ansys-Maxwell to improve the inspection equipment.

SEP 2022 –  
PRESENT

**Graduate student**  
**School of Engineering Science, USTC**

Study the impact of biological tissue (e.g. skull) to ultrasound wave by numerical simulation method. Design ultrasound/photoacoustic imaging algorithm to enhance the quality of images.

## Awards & Honors

- FEB 2024

Scholarship for graduate student
- OCT 2023

Co-authored IEEE-PHM paper get the best paper award in PHM-Hangzhou 2023

SEP 2022	USTC Freshman Scholarship
JUN 2022	Sichuan Province Outstanding Undergraduate Award (Top 3%)
JUN 2022	UESTC Outstanding Undergraduate Award
APR 2021	Mathematical Contest in Modeling (MCM), Honorable Mention
OCT 2020	China Undergraduate Mathematical Contest in Modeling (CUMCM), National-level first prize (Top 2%)

## Professional Skills

- **Programming:** MATLAB, Python, LaTeX
- **Software:** Ansys Maxwell, K-Wave, Amira
- **Languages:** (Mandarin) Chinese, English (IELTS 7.0)

## Extracurricular Activities

- **Badminton:** Level 3 according to Chinese Badminton Association