

RESEARCH

FAN YANG

yangfan.yang@connect.polyu.hk | 852-93700774

Hong Kong Polytechnic University, 11 Yuk Choi Road, Hung Hom, Kowloon

EDUCATION

The Hong Kong Polytechnic University	01/2022-01/2025
Electrical Engineering	
PhD. in <i>Electrical Engineering</i>	
The Hong Kong Polytechnic University	09/2018-06/2020
Electrical Engineering	
M.Sc. in <i>Electrical Engineering</i>	
Qinghai University	09/2013-06/2017
Mechanical electrical engineering	
B.Eng. in <i>Mechanical electrical engineering</i>	

WORK EXPERIENCE

<i>Research Assistant, The Hong Kong Polytechnic University.</i>	09/2020-12/2021
<ul style="list-style-type: none">Research work about ultrasonic application in industry	
<i>Lecture, VINCI AI.</i>	01/2022-09/2022
<ul style="list-style-type: none">Develop aquaponics system AIoT system and Give lessons on aquaponics system to students in Aquaponics system AIoT system Design	

RESEARCH PROJECTS

Current Research

- Ultrasound sensor design and application
- Sensor-based healthcare for older adults
- Battery State-of-Charge estimation

List of publications

- [1] **Yang, F.**, Shi, D., Lo, L. Y., Mao, Q., Zhang, J., & Lam, K. H*. (2023). Auto-Diagnosis of Time-of-Flight for Ultrasonic Signal Based on Defect Peaks Tracking Model. *Remote Sensing*, 15(3), 599.
- [2] **Yang, F.**, Shi, D., & Lam, K. H*. (2022). Modified extended Kalman filtering algorithm for precise voltage and state-of-charge estimations of rechargeable batteries. *Journal of Energy Storage*, 56, 105831
- [3] **Yang, F.**, Shi, D., Mao, Q., & Lam, K. H*. (2023). Scientometric research and critical analysis of battery state-of-charge estimation. *Journal of Energy Storage*, 58, 106283.
- [4] Mao, Q, D., Yu, L., Zhang, J., & **Yang, F**, Wang, H* (2023). Do Sensor-Based Interventions Differ from Traditional Physical Therapies in Improving Older Adults' Balance? *Proceedings of the 67th HFES International Annual Meeting*.
- [5] Zhang, J., Long, X., Zhang, G., Ma, Z., Li, W., Wang, Y., **Fan Yang** & Lam, K. H. (2023). Broadband transparent ultrasound transducer with polymethyl methacrylate as matching layer for in vivo photoacoustic microscopy. *Photoacoustics*, 33, 100548.
- [6] Guo-Cui Bao, Dong-Liang Shi, Jia-Ming Zhang, **Fan Yang**, Guang Yang, Kun Li, Bi-Jun Fang, Kwok-Ho Lam. Samarium-Doped Lead Magnesium Niobate-Lead Titanate Ceramics Fabricated by Sintering the Mixture of Two Different Crystalline Phases. *Materials*. 2023; 16 (20):6781.
- [7] **Yang F**, Mao Q*. Auto-Evaluation Model for the Prediction of Building Energy Consumption That Combines Modified Kalman Filtering and Long Short-Term Memory. *Sustainability*. 2023; 15(22):15749. <https://doi.org/10.3390/su152215749>

Note: * indicates the corresponding author

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Conferences

2023 8TH INTERNATIONAL CONFERENCE ON CONTROL AND ROBOTICS ENGINEERING (ICCRE 2023)(Oral Presentation), Japan

60th Annual British Conference on NDT (NDT 2023)(Oral Presentation), Northampton, United Kingdom

67th International Annual Meeting Human Factors and Ergonomics Society (HFES 2023), Washington, DC, United States

Education service

Develop aquaponics system AIoT system and Give lessons on aquaponics system to students in Aquaponics system AIoT system Design, 2022,VINCI AI, Yang, F.

Academic service (Reviewer)

Aging Clinical and Experimental Research