

Shuaibin Wan

Rm 4222, Academic Building

The Hong Kong University of Science and Technology

Kowloon, Hong Kong SAR, China

+852 5374 4648

swanad@connect.ust.hk

harrybinary.github.io

linkedin.com/in/shuaibin-wan-66505b170

Education

The Hong Kong University of Science and Technology

2018 - 2022 (expected)

Ph.D. (ongoing) in Mechanical and Aerospace Engineering

Harbin Institute of Technology

2014 - 2018

B.Eng. in Material Science and Engineering (GPA: 92.9/100.0, Rank: 2/83)

Research Projects

Shuaibin Wan et al. Deep learning-based design of heterogeneous electrode microstructures. *Under Preparation*.

- PyTorch - Generative adversarial networks (GANs)
- MATLAB - Dataset preparation and pre-processing
- COMSOL - Physics simulation

Shuaibin Wan et al. Machine learning-assisted design of flow fields for redox flow batteries. *In Peer Review*.

- MATLAB - Dataset generation, Convolution neural networks (CNNs)
- COMSOL - Single-cell simulation
- Laboratory - Polarization curve test, Charging and discharging test, Material thermal treatment

Shuaibin Wan et al. [A coupled machine learning and genetic algorithm approach to the design of porous electrodes for redox flow batteries](#). *Applied Energy* **298**, 117177 (2021).

- MATLAB - Stochastic reconstruction, Lattice Boltzmann method (LBM), Artificial neural networks (ANNs)
- Dragonfly - Data processing for 3-D X-ray computed tomography images

Shuaibin Wan et al. [A numerical study of infiltrated solid oxide fuel cell electrode with dual-phase backbone](#). *International Journal of Energy Research* **43** (7), 2562-2570 (2019).

- MATLAB - Stochastic reconstruction
- Laboratory - Electrochemical impedance spectroscopy test (EIS), Material thermal treatment

Side Projects

Building Github Page, Learning MATLAB GUI