

Shengyang Wu

1037 Luoyu Road, Hongshan District, Wuhan 430074, China

syseanwu@umich.edu

EDUCATION

University of Michigan

Ph.D. Student in Electrical & Computer Engineering

Advisors: Prof. Vladimir Dvorkin

Ann Arbor, MI, USA

Aug. 2024 – Present

Huazhong University of Science and Technology

M.Sc. in Electrical Engineering

Advisors: Prof. Xianzhong Duan

Prof. Dongyuan Shi

Wuhan, China

Sep. 2021 – Jun. 2024

North China Electric Power University

B.Eng. in Electrical Engineering

Advisors: Prof. Zhaohao Ding, *IEEE Senior Member*

Beijing, China

Sep. 2017 – Jun. 2021

RESEARCH INTERESTS

- Cyber security of power system and electricity markets
- Privacy-preserving synthetic power system datasets.

PUBLICATIONS

Submitted:

- [1] **S. Wu**, J. Wang, et al, "Extracting Physical Causality from Measurements to Detect and Localize False Data Injection Attacks", Submitted to *IEEE Transactions on Smart Grid*.
- [2] Y. Chen, **S. Wu**, T. Liu, "Efficient Generation of Power System Topology Diagrams Based on Graph Neural Network", Submitted to *IEEE Transactions on Power Systems*.

Journals:

- [1] D. Hu, **S. Wu**, et al, "Training A Dynamic Neural Network to Detect False Data Injection Attacks Under Multiple Unforeseen Operating Conditions", *IEEE Transactions on Smart Grid*. vol. 15, no. 3, pp. 3248-3261, May 2024, doi: 10.1109/TSG.2023.3339975.
- [2] **S. Wu**, Z. Ding, et al, "Unveiling Bidding Uncertainties in Electricity Markets: A Bayesian Deep Learning Framework Based on Accurate Variational Inference", *Energy*, 2023, 276, 127286.

Conferences:

- [1] **S. Wu**, D. Hu, et al, "Interpretable Detection and Localization of False Data Injection Attacks Based on Causal Learning", *2023 IEEE Power & Energy Society General Meeting (PESGM)*.
- [2] Z. Zhao, Y. Zou, **S. Wu**, et al., "VSC-HVDC Traveling Wave Protection Based on the First Current Extremum of the Non-Fault Pole," *2023 IEEE Power & Energy Society General Meeting (PESGM)*.
- [3] Y. Gao, H. Shi, **S. Wu**, et al., "A Practical Approach for Short-Circuit Current Calculation in IIDG-Integrated Distribution Grid," *2022 China International Conference on Electricity Distribution (CICED)*.

SELECTED HONORS & AWARDS

Firstclass Scholarship for Graduates	2021 - 2024
Firstclass Scholarship for Undergraduates	2017 - 2021
Merit Undergraduate student of NCEPU	2021
Merit Undergraduate student of Beijing	2021
National Excellence in College Students' Innovative Entrepreneurial Projects	2019 & 2020

National Scholarships
Champion of Robot Racing Group in 2018 RoboWork

2018 & 2019
2018

TEACHING EXPERIENCES

- **Teaching Assistant** | Power System Analysis *Sep. 2019 – Jun. 2020*
- **Teaching Assistant** | Microprocessor Theory and Interface Technique *Sep. 2019 – Jan. 2020*
- **Leading Lecturer** | NCEPU Entrepreneurship & Innovation Lab *Oct. 2018 – Jun. 2021*