Yongheng Wang

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EDUCATION

The University of Hong Kong September 2024 – Present
Ph.D. Student in Electrical Engineering

Tsinghua University September 2021 – June 2024
M.Phil. in Electrical Engineering

South China University of Technology September 2017 – June 2021
B.E. in Electrical Engineering and Automation

Imperial College London August 2025 – September 2025
Summer School

PUBLICATIONS

Journals

J1 **Y. Wang**, X. Shen, and Y. Xu, "*Joint Planning of Active Distribution Network and EV Charging Stations Considering Vehicle-to-Grid Functionality and Reactive Power Support*," **CSEE Journal of Power and Energy Systems**, 2024, Published.

J2 **Y. Wang** and X. Shen, "*Integrated Planning of Multi-Charging Infrastructure and Urban Distribution Networks Based on Smart Transportation Systems*," **Applied Energy**, 2025, Under Second Review.

J3 **Y. Wang**, "*Tri-Level Two-Stage Stochastic-Robust Planning of Renewable Charging Stations and Distribution Networks: An Adaptive iC&CG Algorithm*," Working Paper.

J4 W. Gao, **Y. Wang** and X. Shen, "*Distributionally Robust Planning of PV-Storage-EV Stations and Low-Carbon Costal City Distribution Network with i-C&CG Algorithm*," **IEEE Transactions on Sustainable Energy**, 2025, Under Review.

J5 H. Wang, X. Shen, and **Y. Wang**, "*Dynamic Reactive Power Optimization Based on Modified Generalized Benders Decomposition*," **IEEE Transactions on Power Systems**, 2025, Under Second Review.

J6 C. Wei, **Y. Wang**, and X. Shen, "*Synergistic Planning of Photovoltaic Energy Storage-Charging Stations and Hydrogen Refueling Stations Considering Carbon Emission Flows*," **Automation of Electric Power Systems**, 2023, Published (in Chinese).

Conferences

C1 **Y. Wang**, "*Two-Stage Robust Planning of Distribution Networks with Renewable Charging Stations: A Strong Optimization Framework*," Working Paper.

C2 G. Liu, **Y. Wang**, *et al.*, "*Coordinated Planning of Active Distribution Network and V2G Charging Stations Considering the Load Characteristics of V2G Stations*," **2022 IEEE 6th Conference on Energy Internet and Energy System Integration (EI2)**, Chengdu, China, 2022, Published.

C3 G. Liu, W. Chen, **Y. Wang**, *et al.*, "*Co-Planning of ADN and EV Charging Stations Considering EV Spatial Migration and Sequential Charging Characteristics*," **2023 8th Asia Conference on Power and Electrical Engineering (ACPEE)**, Tianjin, China, 2023, Published.

Patents

P1 X. Shen, **Y. Wang**, *et al.*, "*Method for Joint Planning of Active Distribution Network and V2G Charging Stations*," **Chinese Patent 202310630383.X**, 2023.

P2 G. Liu, W. Zheng, **Y. Wang**, *et al.*, "*Experimental Device for Simulating Different Contact States of Plum Blossom Contacts by Adjusting the Insertion Depth of Static Contacts*," **Chinese Patent ZL201911315956.X**, 2021.

P3 X. Shen, W. Chen, **Y. Wang**, *et al.*, "*Method for Collaborative Planning of New Energy Vehicle Charging Stations Considering Carbon Emission Flow*," **Chinese Patent 202311022600.3**, 2023.

P4 W. Tang, Y. Zhao, C. Zhong, X. Zhao, X. Shen, **Y. Wang**, *et al.*, "*Method for Optimal Location and Sizing of Wind, Solar, and V2G Charging Stations in Distribution Networks Based on Improved Beetle Antennae Search Particle Swarm Algorithm*," **Chinese Patent 35082119900201004.X**, 2022.

PROJECTS

- 2024.09-present, National Natural Science Foundation of China, *Dissipativity Based Distributed Event-Triggered Control of Complex Dynamic Networks and Its Applications to Microgrid Control.* Key Researcher
- 2024.09-present, Research Grants Council of the Hong Kong Special Administrative Region under the Early Career Scheme, *Small Signal Stability Analysis of Power System with High Penetration of Converter Interfaced Generation.* Key Researcher
- 2022.01-2024.11, China Southern Power Grid Corp, *Key Technology and Demonstration for Large-scale Electric Vehicle Interactions with Power Grid.* Key Researcher
- 2021.09-2023.12, National Natural Science Foundation of China, *Research on Data-driven planning method for Integrated Energy Distribution System considering multiple energy storage.* Key Researcher
- 2020.09-2021.06, National Natural Science Foundation of China, *Damage Mechanism of Lightning Current on Tensioned Stranded Metallic Ground Wires.* Participant

EXPERIENCE

China Southern Power Grid Company Limited June 2018 – September 2018
Intern, Guangzhou Power Supply Bureau

China Southern Power Grid Company Limited April 2022 – December 2022
Intern, Shenzhen Power Supply Bureau

AWARDS

- **National Scholarship** (Top 2%) 2019 – 2020
- **National Scholarship** (Top 2%) 2018 – 2019
- **First Prize Scholarship of Tsinghua University** (Top 5%) 2022 – 2023
- **Kang Dewei Innovation Scholarship** (Top 10%) 2017 – 2018
- **Outstanding Graduate of Tsinghua University** (Top 2%) 2023 – 2024
- **Outstanding Graduation Thesis of Tsinghua University** (Top 5%) 2023 – 2024
- **Outstanding Graduate of South China University of Technology** (Top 5%) 2021 – 2022
- **Outstanding Student Leader** (Top 5%) 2019 – 2020
- **Outstanding Member of Student Union** (Top 5%) 2018 – 2019
- **Outstanding Intern in Power Grid** (Top 5%) 2018 – 2019
- **Third Prize of Professional Practice at Tsinghua University** (Top 10%) 2024
- **Postgraduate Scholarships of The University of Hong Kong** 2025
- **Best Poster Award International Workshop on Learning and Information Theory** (Top 2%) 2023

LEADERSHIP

Tsinghua University Student Union
Member, Practice Department — March 2022 – December 2022

Tsinghua Shenzhen International Graduate School
Monitor, Electrical Engineering Class 21 — October 2021 – August 2022

South China University of Technology Student Union
Secretary, Department of Manpower and Liaison — May 2018 – July 2019

Student Innovation Club of South China University of Technology
Member, Outreach Practice Department — March 2018 – August 2018

Art Group of South China University of Technology
Leader, Host Team — July 2017 – June 2019

SKILLS

Programming:	Matlab, Python, C++
Software:	Microsoft Office, LaTeX, Photoshop
Languages:	English, Chinese

(Updated in September 2025)