Yifan Dong

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Profile

- I am a Ph.D. student in Electrical and Computer Engineering with a strong academic background and hands-on experience in power system analysis, coupled power-transportation system analysis, and system-level optimization for electric roadways. I am skilled in programming languages such as Matlab and Python. I am looking for an internship job matching with my background.

Education

Purdue University, West Lafayette, IN Aug 2023 – Present
Ph.D. student in Electrical and Computer Engineering.

- Research interest: System-level optimization for electric roadways, charging control policy design for dynamic wireless power transfer.
- GPA: 4.0/4.0 (Up-to-date transcript)
- Coursework: Linear Programming, Convex Optimization, Computational Method for Power System Analysis, Random Variables, Energy Conversion, etc.

North China Electric Power University, Beijing, China Aug 2019 – June 2023
BS in Electrical Engineering and its Automation

- GPA: 4.31/5.0 (Top 1%) (Transcript)
- Coursework: Circuit Theory, Power System Analysis, Power System Economy and Management, Electrical Systems and Power Plants, Automatic Control Theory, etc.

Publications

Real-Time Charging Control for Electric Roadways: Formulation and Causal Algorithms

Yifan Dong, Junjie Qin, S. Sivaranjani, Dionysios Aliprantis.

10.1109/PESGM51994.2024.10689067

Experiences

Research Assistant: Design of Charging Control Policy

- Developed a causal charging control algorithm that can be implemented in real-time for electric roadways, where electric vehicles can be wirelessly charged while driving.
- Tested our algorithm with simulations under various of traffic conditions, showing low suboptimality and violation constraints.
- Wrote a paper presenting our work, which has already been published.
- Tools used: Matlab, Python, SUMO

Teaching Assistant: Power Systems Engineering (Purdue ECE 31032)

- Helped instructing the content including economic dispatch, transformers, transmission lines, power system modeling and power flow analysis.

Presentations

- "*Real-Time Charging Control for Electric Roadways*", 2024 ASPIRE Annual Meeting, Logan, UT [**Poster**]
- "*Real-Time Charging Control for Electric Roadways*", 2024 IEEE PES General Meeting, Seattle, WA [**Poster**]

Skills

Languages: C, Matlab, Python.

Software & Tools: SUMO, Latex, Jupyter, OmniGraffle, Microsoft, Solidworks.

Communication: English and Mandarin.