JUNYAN SU

Email: junyan.su@my.cityu.edu.hk
Homepage: sujunyan.github.io

EDUCATION

Ph.D. in Data Science, City University of Hong Kong 2020-present
B.E. in Computer Science and Technology, ShanghaiTech University 2015-2019

RESEARCH INTERESTS

My research interests are intelligent transportation systems, from the perspective of control and optimization. I also have broad interests in computing methods for energy systems.

SELECTED PUBLICATIONS

1. Qiulin Lin, Junyan Su, and Minhua Chen. Competitive online age-of-information optimization for energy harvesting systems. In *Proceedings of IEEE INFOCOM*, 2024 (to appear).
2. Junyan Su, Qiulin Lin, Minghua Chen, and Haibo Zeng. Minimizing carbon footprint for timely e-truck transportation: Hardness and approximation algorithm. In *Proceedings of IEEE Conference on Decision and Control (CDC)*, 2023.
3. Junyan Su, Qiulin Lin, and Minghua Chen. Follow the sun and go with the wind: Carbon footprint optimized timely e-truck transportation. In *Proceedings of the ACM e-Energy*, 2023. **Best Paper Award**.
4. Qiulin Lin, Yanfang Mo, Junyan Su, and Minghua Chen. Competitive online optimization with multiple inventories: A divide-and-conquer approach. *Proc. ACM Meas. Anal. Comput. Syst.*, 6(2), 2022.
5. Yuning Jiang, Junyan Su, Yuanming Shi, and Boris Houska. Distributed optimization for massive connectivity. *IEEE Wireless Communications Letters*, 9(9):1412–1416, 2020.
6. Ling Gao, Junyan Su, Jiadi Cui, Xiangchen Zeng, Xin Peng, and Laurent Kneip. Efficient globally-optimal correspondence-less visual odometry for planar ground vehicles. *Proceedings of IEEE International Conference on Robotics and Automation (ICRA)*, pages 2696–2702, 2020.
7. Junyan Su, Yuning Jiang, Altuğ Bitlislioğlu, Colin N. Jones, and Boris Houska. Distributed multi-building coordination for demand response. *IFAC-PapersOnLine*, 53(2):17113–17118, 2020.

AWARD AND RECOGITION

Second Place, Meituan UAV Competition, 2023.
CDC Student Travel Grant & Workshop Support, 2023.
Research Tuition Scholarship, City University of Hong Kong, 2023.
Outstanding Academic Performance Award, City University of Hong Kong, 2023.
ACM e-Energy Best Paper Award, 2023.
HK Tech 300 & HKTSP Seed Fund, 2022.
Outstanding Graduate, ShanghaiTech University, 2019.
Outstanding Student, ShanghaiTech University, 2016,2017,2018.

SOFTWARE & SKILLS

Main developer of the E2Pilot, a navigation platform for energy-efficient long-haul timely truck transportation.
Main developer of the ParExMPC, an open-source toolbox for real-time close-to-optimal Model Predictive Control (MPC) design providing MATLAB-based user interface and tailored C-code solver.
Main contributor of the simulation for ALL the publication I co-authored.
Programming languages: working knowledge of Julia, Python, C/C++, MATLAB.

PRESENTATIONS

- "Minimizing Carbon Footprint for Timely E-Truck Transportation: Hardness and Approximation Algorithm", CDC 2023, Singpore, December 2023.
- "Follow the Sun and Go with the Wind: Carbon Footprint Optimized Timely E-Truck Transportation", ACM e-Energy 2023, Orlando, Florida, June 2023.

PATENTS

- M. Chen., J. Su, and Q. Lin, "Carbon Footprint Optimized Timely E-Truck Transportation", 8 Feb 2024, (Filed) U.S. Patent Application No. 18/436,350.