

DONGJUN LI

Postdoctoral Research Fellow, University of Michigan, Ann Arbor, MI, USA

+1 (734)-216-2419 [◇ dongjli@umich.edu](mailto:dongjli@umich.edu)

ORCID: [0000-0002-3685-5057](https://orcid.org/0000-0002-3685-5057)

ACADEMIC QUALIFICATIONS

National University of Singapore
Ph.D., Mechanical Engineering

August 2022 – December 2025

Chongqing University, P.R. China
M.E., Automotive Engineering

2018 – 2021

Chongqing University, P.R. China
B.E., Automotive Engineering

2014 – 2018

EMPLOYMENT HISTORY

University of Michigan, Ann Arbor, EECS

2026 – Present

- *Postdoctoral Research Fellow*
- Conduct research on data-driven control, predictive optimization, and energy/battery-aware management for electrified and intelligent transportation systems.

National University of Singapore, Department of Mechanical Engineering

2023 – 2024

- *Teaching Assistant of ME2115: Mechanics of Machines*

Weichai Power Co., Ltd., Electronic Control and Software Research Institute 2021 – 2022

- *Fuel Cell Control Strategy Development Engineer*

China Automotive Engineering Research Institute Co., Ltd.

2019 – 2020

- *Intern, Vehicle Thermal Management Control Strategy Development*

RESEARCH INTERESTS

- Data-driven and data-enabled predictive control
- Data informativity and uncertainty quantification for dynamical systems
- Physics-informed and physics-augmented modeling, learning, and control
- Battery degradation-aware energy and thermal management for electrified vehicles
- Eco-driving and mixed traffic control for connected and automated vehicles

TEACHING EXPERIENCE

University of Michigan, Ann Arbor

2026

- **Guest Lecturer**, EECS 508: Control and Modeling of Power Electronics.
- Delivered two guest lectures on nonlinear control techniques for power electronics:
 - Lyapunov-based control
 - Sliding-mode control

National University of Singapore

2023 – 2024

· **Teaching Assistant**, ME2115: Mechanics of Machines.

SELECTED AWARDS

First Prize in the Motor Vehicle Challenge at the 2025 IEEE VPPC	2025
Outstanding Graduate Student of Chongqing (1/150)	2021
Finalist (Top 20 Worldwide), 2019 TECO Green Tech International Contest	2019
Excellent Graduate of Chongqing University (15/150)	2019

RESEARCH PROJECTS PARTICIPATION

A-Star YIRG, Cloud-facilitated battery thermal management for connected electric vehicles, S\$318,500, 01/04/2023 to 31/03/2026.

LIST OF PUBLICATIONS (Citations > 300, H Index : 9, Source : [GOOGLE SCHOLAR](#))

Journals:

- [1] **D. Li**, H. Dong, and Z. Song (2025), “Eco-driving for connected and automated vehicles: Managing uncertainty in mixed traffic with a physics-enhanced data-driven method,” *IEEE Transactions on Intelligent Transportation Systems*, in press. DOI: 10.1109/TITS.2025.3589490.
- [2] **D. Li**, Q. Hu, W. Jiang, H. Dong, and Z. Song (2025), “Integrated power and thermal management for enhancing energy efficiency and battery life in connected and automated electric vehicles,” *Applied Energy*, vol. 396, p. 126213, 2025.
- [3] **D. Li**, K. Zhang, H. Dong, Q. Wang, Z. Li, and Z. Song (2024), “Physics-augmented data-enabled predictive control for eco-driving of mixed traffic considering diverse human behaviors,” *IEEE Transactions on Control Systems Technology*, vol. 32, no. 4, pp. 1479–1486, 2024.
- [4] **D. Li**, C. Zhang, R. Fan, L. Xu, Y. Wang, W. Guo, J. Chen, and M. Ni (2021), “An innovative thermal management method for cooling loop of electric driving system for durable and high efficiency electric vehicle,” *Applied Thermal Engineering*, vol. 195, p. 117176, 2021.
- [5] K. Lu, **D. Li**, Q. Wang, K. Yang, L. Zhao, and Z. Song (2025), “Safe reinforcement learning-based eco-driving control for mixed traffic flows with disturbances,” *IEEE Transactions on Intelligent Transportation Systems*, 2025.
- [6] Y. Wu, Z. Huang, **D. Li**, H. Li, J. Peng, D. Stroe, and Z. Song (2024), “Optimal battery thermal management for electric vehicles with battery degradation minimization,” *Applied Energy*, vol. 353, p. 122090, 2024.
- [7] Y. Wu, Z. Huang, **D. Li**, H. Li, J. Peng, J. M. Guerrero, and Z. Song (2024), “Integrated battery thermal and energy management for electric vehicles with hybrid energy storage system: A hierarchical approach,” *Energy Conversion and Management*, vol. 317, p. 118853, 2024.
- [8] H. Dong, Q. Hu, **D. Li**, Z. Li, and Z. Song (2024), “Predictive battery thermal and energy management for connected and automated electric vehicles,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 26, no. 2, pp. 2144–2156, 2025.
- [9] Y. Liang, H. Dong, **D. Li**, and Z. Song (2024), “Adaptive eco-cruising control for connected electric vehicles considering a dynamic preceding vehicle,” *eTransportation*, vol. 19, p. 100299, 2024.

- [10] J. Leng, C. Sun, H. Dong, **D. Li**, C. Zhang, and P. C. Chen (2025), “Adaptive eco-driving with guided speed planning and lane changing through signalized intersections,” *IEEE Transactions on Transportation Electrification*, 2025.

Conferences:

- [1] **D. Li**, H. Dong, and Z. Song (2024), “Physics-informed data-enabled predictive control for regulating mixed traffic flows,” in *2024 IEEE Transportation Electrification Conference and Expo (ITEC)*, IEEE, 2024, pp. 1–6.
- [2] **D. Li**, Q. Hu, H. Dong, and Z. Song (2025), “Integrated power and thermal management for reducing battery degradation in electrified connected and automated vehicles,” in *2025 American Control Conference (ACC)*, IEEE, 2025, pp. 4731–4736.
- [3] **D. Li**, H. Dong, L. Xu, and Z. Song (2025), “Multi-objective energy management strategy with trade-off analysis for marine electric propulsion systems,” in *2025 IEEE Vehicle Power and Propulsion Conference (VPPC)*, IEEE, accepted, 2025.
- [4] **D. Li**, H. Dong, L. Xu, and Z. Song (2026), “Direct data-driven predictive control: A computationally efficient approach for eco-driving in mixed traffic flows,” in *2026 American Control Conference (ACC)*, IEEE, accepted, 2026.
- [5] H. Dong, **D. Li**, and Z. Song (2026), “Lane change trajectory planning for personalized driving comfort and mobility efficiency,” in *2026 IEEE Intelligent Vehicles Symposium (IV)*, IEEE, accepted, 2026.

ACADEMIC SERVICE

- Reviewer for more than 120 manuscripts for international journals and conferences in control, transportation electrification, intelligent vehicles, energy systems, and thermal management.
- Reviewer for IEEE journals and conferences, including *IEEE Transactions on Transportation Electrification*, *IEEE Transactions on Intelligent Vehicles*, *IEEE Transactions on Intelligent Transportation Systems*, *IEEE Transactions on Cybernetics*, *IEEE Transactions on Automation Science and Engineering*, American Control Conference, and IEEE Intelligent Vehicles Symposium.
- Reviewer for energy, thermal management, and battery-related journals, including *Applied Energy*, *Applied Thermal Engineering*, *Energy Conversion and Management*, *Energy*, *Journal of Energy Storage*, and *International Journal of Hydrogen Energy*.
- Reviewer for automotive and intelligent transportation journals, including *Automotive Innovation*, *SAE International Journal of Electrified Vehicles*, and *Green Energy and Intelligent Transportation*.