

CONTACT	Department of Electrical and Computer Engineering Oakland University, Rochester, MI 48309, USA	248-370-4797 junchen@oakland.edu www.secs.oakland.edu/~junchen jchen2020.net
EDUCATION	Ph.D. in Electrical Engineering (minor in CS), Iowa State University, Ames IA, 4.0/4.0 B. S. in Automation , Zhejiang University, Hangzhou China	12/2014 06/2009
INTERESTS	Systems and Control, Artificial Intelligence, Intelligent Vehicles, Power & Energy Systems	
EMPLOYMENT	Oakland University , Rochester, MI, USA - Associate Professor , Department of Electrical and Computer Engineering - Assistant Professor, Department of Electrical and Computer Engineering General Motors , Michigan, USA - Senior Control Systems Engineer, Vehicle and Propulsion Control, Milford - Summer Intern, Software V&V, Warren (GM R&D) Idaho National Laboratory , Idaho Falls, ID, USA - R&D Scientist, Power and Energy Systems Iowa State University , Ames, IA, USA - Research Assistant, Stochastic Hybrid Systems - Teaching Assistant, Electrical Engineering	08/2024–present 08/2020–08/2024 01/2017–08/2020 04/2014–07/2014 11/2014–12/2016 01/2011–10/2014 01/2011–12/2013
SELECTED HONORS AND RECOGNITIONS	NSF CAREER Award , National Science Foundation Best Paper Award , IEEE Transactions on Automation Science and Engineering Best Paper Award , IEEE International Conference on Electro-Information Technology IEEE Senior Member Associate Editor , American Control Conference Most Research Active Award , Oakland University New Investigator Research Excellence Award , Oakland University Associate Editor , Modeling, Estimation, and Control Conference R&D 100 Award , R&D World Associate Editor , IEEE Conference on Control Technology and Applications Associate Editor , IEEE International Conference on Robotics and Automation INL Publication Achievement Award , Idaho National Laboratory Research Excellence Award , Iowa State University	2022 2016 2023 2020 2024–present 2024 2024 2024–present 2023 2023–present 2020 2016 2014
SELECTED GRANTS	Total: ~\$4.8m; As lead/sole PI: ~\$1.3m [4] Jun Chen , “Sensor-lean Estimation and Monitoring for Second Life EV Batteries,” 05/2025–04/2028, NSF-ECCS-EPCN. [3] Jun Chen , “Sensor Reduction for Large Battery Packs,” 09/2024–08/2025, Michigan Translational Research and Commercialization (MTRAC) for Advanced Transportation Innovation Hub. [2] Jun Chen , “Optimal Scheduling of Edge Devices for Decentralized Data Preprocessing,” 06/2024–05/2025, NSF IUCRC eCAT Center. [1] Jun Chen , “CAREER: Reconfigurable and Predictive Control with Reinforcement Learning Supervisor for Active Battery Cell Balancing,” 01/2023–12/2027, NSF-ECCS-EPCN.	
PUBLICATIONS	(h-index: 22; <u>underline</u> : students under my close supervision; *: corresponding author) Patents [4] Min Sun, Yiran Hu, David Edwards, Jun Chen , Insu Chang and Steven Moorman, “ Active Thermal Management System and Method for Flow Control ,” U.S. Patent No. US11312208 B2, April 26, 2022.	

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- [2] Yiran Hu, David Edwards, Michael Paratore Jr, Min Sun, **Jun Chen**, Eugene Gonze and Sergio Quelhas, “[Method and Apparatus for Control of Propulsion System Warmup Based on Engine Wall Temperature](#),” U.S. Patent No. 11078825 B2, August 3, 2021.
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- [3] Ali Irshayyid and **Jun Chen***, “Highway Platoon Merging Control using RL: A Review,” in *Control, Learning, and Optimization with Applications in Connected and Autonomous Vehicles*, (To appear in 2026).
- [2] Kaixiang Zhang, Kaian Chen, Zhaojian Li*, **Jun Chen** and Yang Zheng, “Data-Driven Predictive Leading Cruise Control in Mixed Traffic with Privacy Enhancement,” in *Control, Learning, and Optimization with Applications in Connected and Autonomous Vehicles*, (To appear in 2026).
- [1] Mariam Ibrahim, **Jun Chen** and Ratnesh Kumar, “[Quantification of Centralized/Distributed Secrecy in Stochastic Discrete Event Systems](#),” in *Recent Advances in Systems Safety and Security*, Editors: Emil Pricop and Grigore Stamatescu, Springer, May 2016, ISBN: 978-3-319-32523-1.

Journal Articles

- [43] David Flessner and **Jun Chen***, “RL-based Event-Triggered Model Predictive Control for Electric Vehicle Active Battery Cell Balancing,” *ASME Letters in Dynamic Systems and Control*, (Accepted December 2024).
- [42] Ranya Badawi and **Jun Chen***, “[Event-Triggered Boost Converter Model Predictive Control with Kalman Filter](#),” *Systems Science & Control Engineering*, volume 12, number 1, pages 1–15, December 2024.
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- [34] Kaixiang Zhang, Kaian Chen, Zhaojian Li*, **Jun Chen** and Yang Zheng, “[Privacy-Preserving Data-Enabled Predictive Leading Cruise Control in Mixed Traffic](#),” *IEEE Transactions on Intelligent Transportation Systems*, volume 25, number 5, pages 3467–3482, May 2024.
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- [33] Luke Nculaj, Adam Kidwell, Connor Homayouni, Alex Fillmore, Darrin Hanna and **Jun Chen**, “[Optimal FPGA Implementation of Dense Extended Kalman Filter for Simultaneous Cell State Estimation](#),” *IEEE International Midwest Symposium on Circuits and Systems (MWSCAS)*, Springfield, MA, August 11–14, 2024.
- [32] Muye Jia, Mingyuan Tao, Meng Xu*, Peng Zhang, Jiayi Qiu, Gerald Bergsieker and **Jun Chen**, “[RL-MPC: Reinforcement Learning Aided Model Predictive Controller for Autonomous Vehicle Lateral Control](#),” *2024 SAE World Congress*, Detroit, MI, April 16–18, 2024.

- [31] Zhaodong Zhou and **Jun Chen***, “[Modeling Driver Lane Change Behavior Using Inverse Reinforcement Learning](#),” *IEEE International Conference on Computing and Machine Intelligence*, Mount Pleasant, MI, April 13-14, 2024.
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- [28] Zhaodong Zhou, **Jun Chen***, Mingyuan Tao, Peng Zhang and Meng Xu, “[Experimental Validation of Event-Triggered Model Predictive Control for Autonomous Vehicle Path Tracking](#),” *IEEE International Conference on Electro Information Technology*, Romeoville, IL, May 18–20, 2023. (**Best Paper Award:** [link](#))
- [27] Yang Chen, **Jun Chen***, Chenang Liu, Guodong Liu, Maximiliano Ferrari and Aditya Sundararajan, “[Integrated Modeling and Optimal Operation of Multi-Energy System for Coastal Community](#),” *IEEE International Conference on Electro Information Technology*, Romeoville, IL, May 18–20, 2023.
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- [17] **Jun Chen*** and Junhui Zhao, “[Synthetic Wind Speed Scenarios Generation using Artificial Neural Networks for Probabilistic Analysis of Hybrid Energy Systems](#),” *2021 IEEE International Symposium on Industrial Electronics*, Kyoto, Japan, June 20–23, 2021.
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