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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	08/2024–present 08/2020–08/2024 01/2017–08/2020 04/2014–07/2014 11/2014–12/2016
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 Associate Editor , Modeling, Estimation, and Control Conference Outstanding Graduate Mentor Award , Oakland University Most Research Active Award , Oakland University New Investigator Research Excellence Award , Oakland University Most Active Grant Seeker Award , Oakland University Oakland County 40 Under 40 , Oakland County NSF CMMI Game Changer Academies (C-GCA) Panel Fellow , NSF Faculty Recognition Award for Research , Oakland University 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 INL Exceptional Contributions Program Award , Idaho National Laboratory Research Excellence Award , Iowa State University Student Travel Award , American Control Conference Third Class Scholarship for Undergraduate Student , Zhejiang University Outstanding Student , Zhejiang University	2022 2016 2023 2020 2024–present 2024–present 2025 2024 2024 2023 & 2024 2024 2024 2023 2023 2023–present 2020 2016 2015 & 2016 2014 2014 2008 2008
HONORS BY MY ADVISEES	SECS Best Graduate Paper Award (Zhaodong Zhou), Oakland University Undergraduate Research Competition Winner (Steven DeCoste), ASME ICE Division	2024 2022
SELECTED GRANTS	Total: ~\$4.8m; As lead/sole PI: ~\$1.3m; Personal share: ~\$2m [6] Jun Chen , “Sensor-lean Estimation and Monitoring for Second Life EV Batteries,” 05/2025–04/2028, NSF-ECCS-EPCN. [5] Jun Chen , “Development of a Virtual Reality Environment for Autonomous Vehicle Personalization,” 05/2025–04/2026, University Research Committee, Oakland University.	

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- [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; underline: students under my close supervision; *: corresponding author)

Patents

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- [3] **Jun Chen**, Ruixing Long and Yiran Hu, “[Method for Increasing Control Performance of Model Predictive Control Cost Functions](#),” U.S. Patent No. US11192561 B2, December 7, 2021.
- [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.
- [1] **Jun Chen**, David Edwards, Yiran Hu, Min Sun, Adam J. Heinzen and Michael A. Smith, “[Method and System for Determining Thermal State](#),” U.S. Patent No. 10995688 B2, May 4, 2021.

Book Chapters

- [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, **Jun Chen**, Weichao Zhuang and Zhaojian Li, “Privacy-Conscious Data-Enabled Predictive Leading Cruise Control via Affine Masking,” 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.

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- [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*, volume 5, number 2, pages 1–5, April 2025.
- [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.
- [41] Guojiang Xiong*, Jing Zhang, Xiaofan Fu, **Jun Chen** and Ali Wagdy Mohamed, “[Seasonal Short-term Photovoltaic Power Prediction Based on GSK-BiGRU-XGboost Considering Correlation of Meteorological Factors](#),” *Journal of Big Data*, volume 11, number 164, pages 1–19, November 2024.
- [40] Mingqiang Wang, Lei Zhang*, **Jun Chen**, Zhiqiang Zhang, Zhenpo Wang and Dongpu Cao, “[A Hybrid Trajectory Prediction Framework for Automated Vehicles with Attention Mechanisms](#),” *IEEE Transactions on Transportation Electrification*, volume 10, number 3, pages 6178–6194, September 2024.
- [39] Ali Irshayyid, **Jun Chen*** and Guojiang Xiong, “[A Review on Reinforcement Learning-based Highway Autonomous Vehicle Control](#),” *Green Energy and Intelligent Transportation*, volume 3, number 4, pages 1–19, August 2024.
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- [36] [Zhaodong Zhou](#), [Christopher Rother](#) and **Jun Chen***, “[Comparison of Two-Wheel and Four-Wheel Steering using Event-Triggered Predictive Motion Control and Scale Vehicles](#),” *ASME Letters in Dynamic Systems and Control*, volume 4, number 3, pages 1–6, July 2024.
- [35] **Jun Chen***, Lei Zhang and Weinan Gao, “[Reconfigurable Model Predictive Control for Large Scale Distributed Systems](#),” *IEEE Systems Journal*, volume 18, number 2, pages 965–976, June 2024.
- [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.
- [33] [David Flessner](#), **Jun Chen*** and Guojiang Xiong, “[Reinforcement Learning-based Event-Triggered Active Battery Cell Balancing Control for Electric Vehicle Range Extension](#),” *Electronics*, volume 13, number 5, pages 1–22, March 2024.
- [32] Fengying Dang, Dong Chen, **Jun Chen*** and Zhaojian Li*, “[Event-Triggered Model Predictive Control with Deep Reinforcement Learning for Autonomous Driving](#),” *IEEE Transactions on Intelligent Vehicles*, volume 9, number 1, pages 459–468, January 2024.
- [31] Lei Zhang*, Qi Wang, **Jun Chen**, Zhenpo Wang and Shaohua Li, “[Brake-by-Wire System for Passenger Cars: A Review of Structure, Control, Key Technologies, and Application in X-by-Wire Chassis](#),” *eTransportation*, volume 18, number 1, pages 1–15, October 2023.
- [30] **Jun Chen***, Xiangyu Meng and Weinan Gao, “[Preface: Recent Advances on Learning-Based Control - Theory and Application](#),” *International Journal of Modelling, Identification and Control*, volume 43, number 3, pages 177–178, October 2023.
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- [25] Zaiyu Gu, Guojiang Xiong*, Xiaofan Fu, Ali Wagdy Mohamed, Mohammed Azmi Al-Betar, Hao Chen and **Jun Chen**, “[Extracting Accurate Parameters of Photovoltaic Cell Models via Elite Learning Adaptive Differential Evolution](#),” *Energy Conversion and Management*, volume 285, pages 1–25, June 2023.
- [24] Qinghua Liu, Guojiang Xiong*, Xiaofan Fu, Ali Wagdy Mohamed, Jing Zhang, Mohammed Azmi Al-Betar, Hao Chen, **Jun Chen** and Sheng Xu, “[Hybridizing Gaining-Sharing Knowledge and Differential Evolution for Large-scale Power System Economic Dispatch Problems](#),” *Journal of Computational Design and Engineering*, volume 10, number 2, pages 615–631, April 2023.
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- [20] **Jun Chen*** and Junhui Zhao, “Generating Synthetic Wind Speed Scenarios using Artificial Neural Networks for Probabilistic Analysis of Hybrid Energy Systems,” *International Journal of Modelling, Identification and Control*, volume 41, number 3, pages 183–192, July 2022.
- [19] Xuan Xie, Guojiang Xiong*, **Jun Chen** and Jing Zhang, “Universal Transparent Artificial Neural Network-Based Fault Section Diagnosis Models for Power Systems,” *Advanced Theory and Simulations*, volume 5, number 4, pages 1–12, April 2022.
- [18] Guojiang Xiong*, Xufeng Yuan, Ali Wagdy Mohamed, **Jun Chen** and Jing Zhang, “Improved Binary Gaining-sharing Knowledge based Algorithm with Mutation for Fault Section Location in Distribution Networks,” *Journal of Computational Design and Engineering*, volume 9, number 2, pages 393–405, April 2022.
- [17] **Jun Chen*** and Ramesh S, “Model-based Validation of Diagnostic Software with Application in Automotive Systems,” *IET Cyber-Systems and Robotics*, volume 3, number 2, pages 140–149, June 2021.
- [16] **Jun Chen***, “Extended Kalman Filter Steady Gain Scheduling using k -means Clustering,” *International Journal of Modelling, Identification and Control*, volume 34, number 2, pages 158–162, February 2020.
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- [14] **Jun Chen**, Qin Wang, Jianming Lian and Wanning Li, “Guest Editorial: Advances in Control and Decision for Power and Energy Systems,” *Journal of Control and Decision*, volume 5, number 2, pages 115–116, February 2018.
- [13] **Jun Chen**, Christoforos Keroglou, Christoforos N. Hadjicostis and Ratnesh Kumar, “Revised Test for Stochastic Diagnosability of Discrete-Event Systems,” *IEEE Transactions on Automation Science and Engineering*, volume 15, number 1, pages 404–408, January 2018.
- [12] **Jun Chen**, Peter Molnar and Aman Behal, “Identification of a Stochastic Resonate-and-Fire Neuronal Model via Nonlinear Least Squares and Maximum Likelihood Estimation,” *International Journal of Modelling, Identification and Control*, volume 28, number 3, pages 221–231, October 2017.
- [11] **Jun Chen** and Cristian Rabiti, “Synthetic Wind Speed Scenarios Generation for Probabilistic Analysis of Hybrid Energy Systems,” *Energy*, volume 120, pages 507–517, February 2017.
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- [9] Jong S. Kim, **Jun Chen** and Humberto E. Garcia, “Modeling, Control, and Dynamic Performance Analysis of a Reverse Osmosis Desalination Plant Integrated within Hybrid Energy Systems,” *Energy*, volume 112, pages 52–66, October 2016.
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- [7] **Jun Chen**, Humberto E. Garcia, Jong S. Kim and Shannon M. Bragg-Sitton, “Operations Optimization of Nuclear Hybrid Energy Systems,” *Nuclear Technology*, volume 195, number 2, pages 143–156, August 2016.
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- [2] **Jun Chen** and Ratnesh Kumar, “[Polynomial Test for Stochastic Diagnosability of Discrete Event Systems](#),” *IEEE Transactions on Automation Science and Engineering*, volume 10, number 4, pages 969–979, October 2013.
- [1] Lingfei Zhi, **Jun Chen**, Peter Molnar and Aman Behal, “[Weighted Least-Squares Approach for Identification of a Reduced-Order Adaptive Neuronal Model](#),” *IEEE Transactions on Neural Networks and Learning Systems*, volume 23, number 5, pages 834–840, May 2012.

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- [36] Lateefa Shibah Tusuubira, Wen-Chiao Lin* and **Jun Chen**, “Fault Mitigation for Autonomous Vehicles with Reduced Front Steering Capability,” *IEEE International Conference on Prognostics and Health Management*, Denver, CO, June 9–11, 2025, 2025.
- [35] Cory Ness and **Jun Chen***, “Extended Kalman Filter for Flywheel Systems,” *IEEE International Conference on Electro Information Technology*, Valparaiso, IN, May 29–31, 2025.
- [34] Zhaodong Zhou, Yu Jiang and **Jun Chen***, “Exploring Optimal Pumping Strategy in Active Suspension Systems for Speed Maximization during Downhill Motion,” *12th IFAC Symposium on Intelligent Autonomous Vehicles*, Phoenix, AZ, May 7–9, 2025.
- [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.
- [30] Ali Irshayyid and **Jun Chen***, “[Highway Merging Control Using Multi-Agent Reinforcement Learning](#),” *IEEE International Conference on Computing and Machine Intelligence*, Mount Pleasant, MI, April 13–14, 2024.
- [29] Mohammad R. Hajidavalloo, **Jun Chen***, Qiuha Hu and Zhaojian Li, “[Study on the Benefits of Integrated Battery and Cabin Thermal Management in Cold Weather Conditions](#),” *2023 American Control Conference*, San Diego, CA, May 31–June 2, 2023.
- [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.
- [26] **Jun Chen*** and Zhaodong Zhou, “[Battery Cell Imbalance and Electric Vehicles Range: Correlation and NMPC-based Balancing Control](#),” *IEEE International Conference on Electro Information Technology*, Romeoville, IL, May 18–20, 2023.
- [25] Steven DeCoste, Antonio Scalzi, **Jun Chen*** and Dan DeVescovo*, “[Minimizing Steady-State Testing Time in an Engine Dynamometer Laboratory](#),” *2023 SAE World Congress*, Detroit, MI, April 18–20, 2023.
- [24] Ranya Badawi and **Jun Chen***, “[Performance Evaluation of Event-Triggered Model Predictive Control for Boost Converter](#),” *2022 IEEE Vehicle Power and Propulsion Conference*, Merced, CA, November 1–4, 2022.
- [23] Man Liang* and **Jun Chen**, “[A Conceptual Design of Barking Drones Fleet Management to Detect and Repulse Cattle](#),” *21st Asia Pacific Automotive Engineering Conference*, Melbourne, Australia, October 3–5, 2022.

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- [21] **Jun Chen***, Xiangyu Meng and Zhaojian Li, “[Reinforcement Learning-based Event-Triggered Model Predictive Control for Autonomous Vehicle Path Following](#),” *2022 American Control Conference*, Atlanta, GA, June 8–10, 2022.
- [20] **Shan Huang** and **Jun Chen***, “[Event-triggered Model Predictive Control for Autonomous Vehicle with Rear Steering](#),” *2022 SAE World Congress*, Detroit, MI, April 5–7, 2022.
- [19] **Jun Chen***, Aman Behal and Chong Li, “[Active Cell Balancing by Model Predictive Control for Real Time Range Extension](#),” *IEEE Conference on Decision and Control*, Austin, TX, USA, December 13–15, 2021.
- [18] **Jun Chen*** and Zonggen Yi, “[Comparison of Event-Triggered Model Predictive Control for Autonomous Vehicle Path Tracking](#),” *2021 IEEE Conference on Control Technology and Applications*, San Diego, CA, August 8–11, 2021. (Invited Paper)
- [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.
- [16] **Jun Chen***, Man Liang and Xu Ma, “[Probabilistic Analysis of Electric Vehicle Energy Consumption Using MPC Speed Control and Nonlinear Battery Model](#),” *2021 IEEE Green Technologies Conference*, Denver, CO, April 7–9, 2021.
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- [14] Aaron S. Epiney, Andrea Alfonsi, Cristian Rabiti and **Jun Chen**, “[Economic Assessment of Nuclear Hybrid Energy Systems: Optimization using RAVEN](#),” *2017 ANS Annual Meeting*, San Francisco, CA, June 11–15, 2017.
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- [11] Mariam Ibrahim, **Jun Chen** and Ratnesh Kumar, “[A Resiliency Measure for Electrical Power Systems](#),” *2016 IFAC/IEEE International Workshop on Discrete Event Systems*, Xi’an, China, May 30 – June 1, 2016.
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- [6] Mariam Ibrahim, **Jun Chen** and Ratnesh Kumar, “[Secrecy in Stochastic Discrete Event Systems](#),” *2014 IEEE International Conference on Networking, Sensing and Control*, Miami, FL, April 7–9, 2014.
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- [3] **Jun Chen** and Ratnesh Kumar, “[Decentralized Failure Diagnosis of Stochastic Discrete Event Systems](#),” *2013 IEEE Conference on Automation Science and Engineering*, Madison, WI, August 17–21, 2013. (Invited Paper)
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- [1] **Jun Chen**, Jose Suarez, Peter Molnar and Aman Behal, “[Maximum Likelihood Parameter Estimation in a Stochastic Resonate-and-Fire Neuronal Model](#),” *2011 IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS)*, Orlando, FL, February 3–5, 2011.

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- [1] **Jun Chen**, “On the Reliability of MVB Communication Network,” Bachelor’s Thesis, College of Electrical Engineering, Zhejiang University, China, June 2009.

OTHER
RESEARCH
PRODUCTS

(Students under my close supervision are marked in underline)

Posters

- [1] Zhaodong Zhou and **Jun Chen**, “Inverse Reinforcement Learning based MPC for Personalized Lane Change Control,” *2025 American Control Conference*, Denver, CO, July 8–10, 2025.
- [2] Ali Irshayyid and **Jun Chen**, “GNN-Based Surrogate Model for Reconfigurable Battery Packs,” *2025 American Control Conference*, Denver, CO, July 8–10, 2025.
- [3] Nana Duah, Yang Chen, **Jun Chen** and Om Prakash Yadav, “Ocean Energy Supported Multi-Energy System Planning and Operation Optimization for Sustainable Coastal Community,” *2024 North Carolina Renewable Ocean Energy Program Symposium*, Coastal Studies Institute, Wanchese, NC, April 8–9, 2024.
- [4] **Jun Chen**, “Active Battery Cell Balancing Control for EV Range Extension,” *2024 NSF Aspiring CPS PIs’ Workshop*, Nashville, TN, March 19, 2024.
- [5] **Jun Chen**, “AI-assisted Embedded Control for Electrified and Intelligent Systems,” *2023 SECS Faculty Research Expo*, Oakland University, Rochester, MI, October 27, 2023.
- [6] Ali Irshayyid and **Jun Chen**, “Comparative Study of Cooperative Platoon Merging Control based on Reinforcement Learning,” *2023 American Control Conference*, San Diego, CA, May 31–June 2, 2023.
- [7] **Jun Chen**, “AI Enhanced Control for Intelligent Systems,” *2022 SECS Faculty Research Expo*, Oakland University, Rochester, MI, October 7, 2022.
- [8] Christopher Rother and **Jun Chen**, “Scale Vehicle Development for Autonomous Vehicle Motion Controls Testing,” *5th International Conference on Connected and Autonomous Driving (MetroCAD 2022)*, Detroit, MI, April 28, 2022.
- [9] Zhaodong Zhou, Christopher Rother and **Jun Chen**, “Event-Triggered MPC for AV Motion Planning and Control,” *NSF IUCRC on Pervasive Personalized Intelligence Planning and IAB Workshop*, Oakland University, Rochester, MI, April 7, 2022.
- [10] **Jun Chen**, “Optimal Control and Artificial Intelligence Lab,” *2021 SECS Faculty Research Expo*, Oakland University, Rochester, MI, October 29, 2021.
- [11] **Jun Chen** and Humberto E. Garcia, “Operations Optimization of Nuclear Hybrid Energy Systems,” *2015 INL Early Career Research Symposium*, Idaho Falls, ID, July 30–31, 2015.

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- [13] **Jun Chen** and Ratnesh Kumar, “Metrics for Secrecy and Resiliency for Cyber-Physical Systems,” *9th Showcase Meeting, NSF Security and Software Engineering Research Center*, Washington D.C., May 20, 2014.
- [14] **Jun Chen**, Meng Li and Ratnesh Kumar, “Model-based Embedded Software Testing/Monitoring,” *2014 ECpE Graduate Poster Session, Iowa State University*, Ames, IA, April 18, 2014.

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- [1] Zhaodong Zhou, **Jun Chen**, Mingyuan Tao, Peng Zhang and Meng Xu, “Experimental Validation of Event-Triggered Model Predictive Control for Autonomous Vehicle Path Tracking,” *ISUZU Technical Journal*, Tokyo, Japan: Isuzu Motors Ltd., August 2024.
- [2] Cristian Rabiti, Andrea Alfonsi, Joshua Cogliati, Diego Mandelli, Robert Kinoshita, Sonat Sen, Congjian Wang, **Jun Chen**, “RAVEN User Manual,” INL/EXT-15-34123 Version 5, Idaho Falls, ID: Idaho National Laboratory, March 2017.
- [3] Joshua Cogliati, **Jun Chen**, Japan Patel, Diego Mandelli, Daniel Maljovec, Andrea Alfonsi, Cristian Rabiti and Congjian Wang, “Time Dependent Data Mining in RAVEN,” INL/EXT-16-39860, Idaho Falls, ID: Idaho National Laboratory, September 2016.
- [4] Aaron Epiney, **Jun Chen** and Cristian Rabiti, “Status on the Development of a Modeling and Simulation Framework for the Economic Assessment of Nuclear Hybrid Energy Systems (FY 16),” INL/EXT-16-39832, Idaho Falls, ID: Idaho National Laboratory, September 2016.
- [5] Shannon M. Bragg-Sitton, Richard D. Boardman, Cristian Rabiti, Jong S. Kim, Michael G. McKellar, Piyush Sabharwall, **Jun Chen**, M. Sacit Cetiner, T. Jay Harrison and A. Lou Qualls, “Nuclear-Renewable Hybrid Energy Systems: 2016 Technology Development Program Plan,” INL/MIS-16-38165, Idaho Falls, ID: Idaho National Laboratory, March 2016.
- [6] Shannon M. Bragg-Sitton, Richard D. Boardman, Cristian Rabiti, Jong S. Kim, Michael G. McKellar, Piyush Sabharwall, **Jun Chen**, Mark Ruth, M. Sacit Cetiner, T. Jay Harrison and A. Lou Qualls, “Nuclear-Renewable Hybrid Energy Systems 2016 Technology Development Roadmap (DRAFT),” INL/EXT-15-37446, Idaho Falls, ID: Idaho National Laboratory, December 2015.
- [7] Humberto E. Garcia, **Jun Chen**, Jong S. Kim, Michael G. McKellar, Wesley R. Deason, Richard B. Vilim, Shannon M. Bragg-Sitton and Richard D. Boardman, “Nuclear Hybrid Energy Systems – Regional Studies: West Texas & Northeastern Arizona,” INL/EXT-15-34503, Idaho Falls, ID: Idaho National Laboratory, April 2015.
- [8] **Jun Chen**, “Model-based Validation of Diagnostic Specification,” Electrical & Controls Systems Lab, General Motors Research & Development Center, Warren, MI, July 2014.

Non-Refereed Conference Articles / Presentations

- [1] Nana Duah, Yang Chen, Om Prakash Yadav and **Jun Chen**, “Ocean Energy Supported Multi-Energy System Planning and Operation Optimization for Sustainable Coastal Community,” *2024 North Carolina Renewable Ocean Energy Program Symposium*, Coastal Studies Institute, Wanchese, NC, April 8–9, 2024.
- [2] Zhibang Xu, **Jun Chen** and Xia Wang, “SOC and SOH Estimation of Lithium-ion Battery using Reduced-order Physics Model and Extended Kalman Filter,” *2023 Battery & EV Congress*, Troy, MI, May 3–4, 2023.
- [3] Zhibang Xu, **Jun Chen** and Xia Wang, “Prediction of SOC and SOH of Li-ion Battery using Reduced-order Physics-based Model,” *2023 SAE World Congress*, Detroit, MI, April 18–20, 2023.
- [4] Steven DeCoste, Antonio Scalzi, **Jun Chen** and Dan DelVescovo, “Developing an Algorithm for Minimizing Steady State Engine Testing Time,” *ASME ICE Forward 2022 Conference Undergrad Research Competition*, Indianapolis, IN, October 16–19, 2022.

- [5] Zhibang Xu, **Jun Chen**, Xia Wang and Zissimos Mourelatos, “Developing Reduced-order Physical Based Model to Estimate the SOC of Li-Ion Batteries,” *2021 Battery Congress*, Virtual Session, May 12–13, 2021.

Confidential Publications

- [1] **Jun Chen**, et al., One (1) Defensive Publication with General Motors, August 2020. (Details remain confidential.)

Open Source Software

- [1] “JetRacer-4WS,” Oakland University, MI, USA
- Source code for JetRacer-4WS, a 1/10th scale vehicle with four-wheel steering capability.
 - GitHub: <https://github.com/jchenee2015/jetracer-4ws>
 - Role: Principle Investigator.
- [2] “RL-eMPC for AV”, Oakland University and Michigan State University, MI, USA
- A simulation environment to test RL-based event-triggered MPC for AV lateral motion control.
 - GitHub: <https://github.com/DangFengying/RL-based-event-triggered-MPC>
 - Role: Principle Investigator.
- [3] “Risk Analys Virtual ENvironment (RAVEN),” Idaho National Laboratory, ID, USA
- **R&D 100 Award, 2023**, [link](#)
 - URL: <https://raven.inl.gov/SitePages/Overview.aspx>
 - GitHub: <https://github.com/idaholab/raven>
 - Contribution: time dependent data mining, stochastic optimization, and synthetic data generation

ACADEMIC SERVICES

Journal Editorial

- [1] **Associate Editor**, *Systems Science & Control Engineering*, 2024–present.
- [2] **Associate Editor**, *International Journal of Modelling, Identification and Control*, 2023–present.
- [3] **Associate Editor**, *IET Cyber-Systems and Robotics*, 2022–present.
- [4] **Lead Guest Editor**, for Special Issue on “[Intelligent Control Systems for Autonomous Vehicles](#),” *Sensors*, 2023–present.
- [5] Associate Editor, *Energy Systems*, 2016–2024.
- [6] Lead Guest Editor, for Special Issue on “[Recent Advances on Learning-based Control: Theory and Application](#),” *International Journal of Modelling, Identification and Control* (volume 43, number 3, 2023), 2021–2023.
- [7] Guest Editor, for Special Issue on “[Artificial Intelligence Based Autonomous Vehicles](#),” *Sensors* (volume 21-23), 2021–2023.
- [8] Guest Editor, for Special Issue on “Emerging Model-based and Data-Driven Techniques in Control, Communication and Learning,” *Electronics*, 2021–2022.
- [9] Guest Editor, for Special Issue on “Advanced Safety Design and Control for Electric Vehicles,” *International Journal of Vehicle Design*, 2021–2022.
- [10] Associate Editor, *Journal of Control and Decision*, 2016–2019.
- [11] Lead Guest Editor, for Special Issue on “[Advances in Control and Decision for Power and Energy Systems](#),” *Journal of Control and Decision* (volume 5, number 2, 2018), 2016–2018.

Conference Editorial and Chair

- [1] **Associate Editor**, *IEEE International Midwest Symposium on Circuits and Systems*, 2025–present.
- [2] **Associate Editor**, *American Control Conference*, 2024–present.
- [3] **Associate Editor**, *Modeling, Estimation, and Control Conference*, 2024–present.
- [4] Technical Program Committee Member, *IEEE International Conference on Mobility: Operations, Services, and Technologies*, 2024–present.

- [5] **Associate Editor**, *IEEE Conference on Control Technology and Applications*, 2023–present.
- [6] **Invited Session Organizer**, *Modeling, Estimation, and Control Conference*, Pittsburgh, PA, USA, 2025, for invited session “Integrating Machine Learning and Control Theory for Sustainable Transportation Solutions”.
- [7] Technical Program Committee Member, *IEEE International Conference on Machine Learning and Applications*, 2021–2024.
- [8] Associate Editor, *IFAC International Symposium on Advances in Automotive Control*, 2022.
- [9] Associate Editor, *Chinese Control and Decision Conference*, 2013–2024.
- [10] Session Chair, *IEEE International Conference on Machine Learning and Applications*, Pasadena, CA, 2021, for Regular Session “Object Detection and Retrieval”.
- [11] Associate Editor, *IEEE International Conference on Robotics and Automation*, 2020.
- [12] Session Chair, *American Control Conference*, Portland, OR, 2014, for Regular Session “Discrete Event Systems”.
- [13] Invited Session Organizer and Co-Chair, *IEEE International Conference on Networking, Sensing and Control*, Miami, FL, 2014, for Invited Session “Model-Based Developments for Embedded and Cyber-physical System”.

Panel and Technical Committee

- [1] Panelist, *NSF-ECCS-EPCN*, 2022, 2024.
- [2] Proposal Reviewer for Natural Sciences and Engineering Research Council of Canada (NSERC), 2024.
- [3] Proposal Reviewer for National Research and Development Agency (ANID) of the Ministry of Science, Technology, Knowledge and Innovation of Chile, 2023.
- [4] Technical Committee on Automotive Control, IEEE Control Systems Society, 2021–present.
- [5] Technical Committee Automotive and Transportation Systems, ASME Dynamic Systems and Control Division, 2020–present.
- [6] Technical Committee on Discrete-Event Systems, IEEE Control Systems Society, 2017–present.

Journal/Publisher/Conference Reviewer

- Reviewed for 90+ journals, publisher and conferences.