JUN CHEN, PH.D., ASSOCIATE PROFESSOR

Updated 11/2025

CONTACT

Department of Electrical and Computer Engineering
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EDUCATION

Ph.D. in Electrical Engineering (minor in CS), Iowa State University, Ames IA, 4.0/4.0 — 12/2014

B. S. in Automation, Zhejiang University, Hangzhou China — 06/2009

INTERESTS

Systems and Control, Artificial Intelligence, Intelligent Vehicles, Robotics, Battery Management Systems

EMPLOYMENT

Oakland University, Rochester, MI, USA

- **Associate Professor**, Department of Electrical and Computer Engineering — 08/2024–present
- Assistant Professor, Department of Electrical and Computer Engineering — 08/2020–08/2024

General Motors, Michigan, USA

- Senior Control Systems Engineer, Vehicle and Propulsion Control, Milford — 01/2017–08/2020
- Summer Intern, Software V&V, Warren (GM R&D) — 04/2014–07/2014

Idaho National Laboratory, Idaho Falls, ID, USA

- R&D Scientist, Power and Energy Systems — 11/2014–12/2016

HONORS AND RECOGNITIONS

NSF CAREER Award, National Science Foundation — 2022
Best Paper Award, IEEE Transactions on Automation Science and Engineering — 2016
Best Paper Award, IEEE International Conference on Electro-Information Technology — 2023
IEEE Senior Member — 2020
Associate Editor, American Control Conference — 2024–present
Associate Editor, Modeling, Estimation, and Control Conference — 2024–present
Associate Editor, IEEE Conference on Control Technology and Applications — 2023–present
Outstanding Graduate Mentor Award, Oakland University — 2025
Most Research Active Award, Oakland University — 2024
New Investigator Research Excellence Award, Oakland University — 2024
Most Active Grant Seeker Award, Oakland University — 2023 & 2024
Oakland County 40 Under 40, Oakland County — 2024
NSF CMMI Game Changer Academies (C-GCA) Panel Fellow, NSF — 2024
Faculty Recognition Award for Research, Oakland University — 2023
R&D 100 Award, R&D World — 2023
Associate Editor, IEEE International Conference on Robotics and Automation — 2020
INL Publication Achievement Award, Idaho National Laboratory — 2016
INL Exceptional Contributions Program Award, Idaho National Laboratory — 2015 & 2016
Research Excellence Award, Iowa State University — 2014
Student Travel Award, American Control Conference — 2014
Third Class Scholarship for Undergraduate Student, Zhejiang University — 2008
Outstanding Student, Zhejiang University — 2008

HONORS BY MY ADVISEES

Student Grant (Wanqun Yang), Modeling, Estimation and Control Conference — 2025
SECS Best Graduate Paper Award (Zhaodong Zhou), Oakland University — 2024
Undergraduate Research Competition Winner (Steven DeCoste), ASME ICE Division — 2022

SELECTED GRANTS

Total: ∼$5.7m; As lead/sole PI: ∼$2.2m; Personal share: ∼$2.4m

[7] **Jun Chen**, "Collaborative Research: Scalable Privacy Verification and Quantification for Multi-Robot Systems," 10/2025–09/2028, NSF-FRR. (Collaborative project with Dr. Feng Lin from Wayne State University; Lead institution – OU)

[6] **Jun Chen**, "Sensor-lean Estimation and Monitoring for Second Life EV Batteries," 05/2025–04/2028, NSF-ECCS-EPCN.

[5] **Jun Chen**, "CAREER: Reconfigurable and Predictive Control with Reinforcement Learning Supervisor for Active Battery Cell Balancing," 01/2023–12/2027, NSF-ECCS-EPCN.

[4] **Jun Chen**, "Sensor Reduction for Large Battery Packs," 09/2024–08/2026, Michigan Translational Research and Commercialization (MTRAC) for Advanced Transportation Innovation Hub.

[3] **Jun Chen**, "Affordable Autonomous Vehicle Platform for University Research and Education," 09/2025–08/2026, MEDC ADVANCE Proof-of-Concept Fund.

[2] Ankun Yang, **Jun Chen**, Xia Wang, Yongsoon Yoon, Dan DelVescovo, Daniel Aloi, Shadi Alawneh and Mohammad Sedigh Toulabi, "Next-Gen Electrification Testing and Standards Facility: from Materials to Vehicles," 10/2024–09/2026, National Institute of Standards and Technology.

[1] Yang Chen, **Jun Chen** and Om Prakash Yadav, "Ocean Energy Supported Multi-Energy System Planning and Operation Optimization for Sustainable Coastal Community," 07/2023–06/2024, Coastal Studies Institute, North Carolina Renewable Ocean Energy Program.

PUBLICATIONS

(h-index: 24; underline: 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.

[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

[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.

Editorial

[2] **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.

[1] **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.

Journal Articles

[47] **Jun Chen*** and Feng Lin, "A General Framework for Detectability in Stochastic Discrete Event Systems," *IEEE Control Systems Letters*, (Accepted for Publication October 2025)

[46] Zhaodong Zhou and **Jun Chen***, "Privacy-Preserving Personalized Autonomous Vehicle Lane Change Using Inverse Reinforcement Learning," *IEEE Transactions on Vehicular Technology*, (Accepted for Publication September 2025)

[45] Luke Nuculaj and **Jun Chen***, "Simultaneous Cell State Estimation via Dense Adaptive Extended Kalman Filter," *IEEE Transactions on Control Systems Technology*, volume 33, number 6, pages 2092–2107, November 2025.

[44] Owais Ogdeh, Luke Nuculaj, Ali Irshayyid, Zhaodong Zhou and **Jun Chen***, "Cell State-of-Charge Estimation with Limited Voltage Sensor Measurements," *Applied Sciences*, volume 25, number 18, pages 1–15, September 2025.

[43] Wanqun Yang and **Jun Chen***, "Comparison of Linear MPC and Explicit MPC for Battery Cell Balancing Control," *Algorithms*, volume 18, number 9, pages 1–13, September 2025.

[42] David Flessner and **Jun Chen***, "Reinforcement Learning-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.

[41] Zhaodong Zhou, Mingyuan Tao, Jiayi Qiu, Peng Zhang, Meng Xu and **Jun Chen***, "Autonomous Vehicle Path Tracking Using Event-Triggered MPC with Switching Model: Methodology and Real-World Validation," *IET Control Theory & Applications*, volume 19, number 1, pages 1–10, January 2025.

[40] 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.

[39] 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.

[38] 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.

[37] 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.

[36] Cong Wang, Zhenpo Wang, Lei Zhang*, **Jun Chen** and Dongpu Cao, "Post-Impact Stability Control for Road Vehicles: State-of-the-Art Methodologies and Perspectives," *IEEE Transactions on Intelligent Transportation Systems*, volume 25, number 8, pages 8295–8312, August 2024.

[35] **Jun Chen***, Aman Behal, Zhaojian Li and Chong Li, "Active Battery Cell Balancing by Real Time Model Predictive Control for Extending Electric Vehicle Driving Range," *IEEE Transactions on Automation Science and Engineering*, volume 21, number 3, pages 4003–4015, July 2024.

[34] 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.

[33] **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.

[32] 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.

[31] 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.

[30] 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.

[29] 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.

[28] Mohammad R. Hajidavalloo, **Jun Chen***, Qiuhao Hu, Ziyou Song, Xunyuan Yin and Zhaojian Li, "NMPC-based Integrated Thermal Management of Battery and Cabin for Electric Vehicles in Cold Weather Conditions," *IEEE Transactions on Intelligent Vehicles*, volume 8, number 9, pages 4208–4222, September 2023.

[27] Christopher Rother, Zhaodong Zhou and **Jun Chen***, "Development of a Four-Wheel Steering Scale Vehicle for Research and Education on Autonomous Vehicle Motion Control," *IEEE Robotics and Automation Letters*, volume 8, number 8, pages 5015–5022, August 2023.

[26] Zhaodong Zhou, Christopher Rother and **Jun Chen***, "Event-Triggered Model Predictive Control for Autonomous Vehicle Path Tracking: Validation using CARLA Simulator," *IEEE Transactions on Intelligent Vehicles*, volume 8, number 6, pages 3547–3555, June 2023.

[25] **Jun Chen***, "A Probabilistic Test for A-Diagnosability of Stochastic Discrete-Event Systems with Guaranteed Error Bound," *IEEE Control Systems Letters*, volume 7, number 1, pages 2833–2838, June 2023.

[24] 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.

[23] 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.

[22] Ali Irshayyid and **Jun Chen***, "Comparative Study of Cooperative Platoon Merging Control Based on Reinforcement Learning," *Sensors*, volume 23, number 2-990, pages 1–23, January 2023.

[21] **Jun Chen***, Zhaodong Zhou, Ziwei Zhou, Xia Wang and Boryann Liaw, "Impact of Battery Cell Imbalance on Electric Vehicle Range," *Green Energy and Intelligent Transportation*, volume 1, number 3, pages 1–8, December 2022.

[20] **Jun Chen*** and Ratnesh Kumar, "Stochastic Failure Prognosis of Discrete Event Systems," *IEEE Transactions on Automatic Control*, volume 67, number 10, pages 5487–5492, October 2022.

[19] **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.

[18] 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.

[17] 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.

[16] **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.

[15] **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.

[14] Xiang Yin, **Jun Chen**, Zhaojian Li and Shaoyuan Li, "Robust Fault Diagnosis of Stochastic Discrete Event Systems," *IEEE Transactions on Automatic Control*, volume 64, number 10, pages 4237–4244, October 2019.

[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.

[10] **Jun Chen**, Mariam Ibrahim and Ratnesh Kumar, "Quantification of Secrecy in Partially Observed Stochastic Discrete Event Systems," *IEEE Transactions on Automation Science and Engineering*, volume 14, number 1, pages 185–195, January 2017.

[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.

[8] **Jun Chen** and Humberto E. Garcia, "Economic Optimization of Operations for Hybrid Energy Systems under Variable Markets," *Applied Energy*, volume 177, pages 11–24, September 2016.

[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.

[6] Humberto E. Garcia, **Jun Chen**, Jong S. Kim, Richard B. Vilim, William R. Binder, Shannon M. Bragg-Sitton, Richard D. Boardman, Michael G. McKellar and Christiaan J. J. Paredis, "Dynamic Performance Analysis of Two Regional Nuclear Hybrid Energy Systems," *Energy*, volume 107, pages 234–258, July 2016.

[5] **Jun Chen** and Ratnesh Kumar, "Fault Detection of Discrete-Time Stochastic Systems Subject to Temporal Logic Correctness Requirements," *IEEE Transactions on Automation Science and Engineering*, volume 12, number 4, pages 1369–1379, October 2015. (**IEEE Best Paper Award**: link)

[4] **Jun Chen** and Ratnesh Kumar, "Stochastic Failure Prognosability of Discrete Event Systems," *IEEE Transactions on Automatic Control*, volume 60, number 6, pages 1570–1581, June 2015.

[3] **Jun Chen** and Ratnesh Kumar, "Failure Detection Framework for Stochastic Discrete Event Systems with Guaranteed Error Bounds," *IEEE Transactions on Automatic Control*, volume 60, number 6, pages 1542–1553, June 2015.

[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.

Peer Reviewed Conference Articles

[41] Artem Abzaliev, Rutchanon Hatasen, Hussein Kokash, Linda Zhu, **Jun Chen** and Mihai G. Burzo, "Machine Learning and Sensory Integration for Real-Time Road Surface Assessment," *ASME International Mechanical Engineering Congress & Exposition*, Memphis, TN, USA, November 16–20, 2025.

[40] Ashwin Devanga, Tingjun Lei*, Jueming Hu, **Jun Chen** and Chaomin Luo, "Trustworthy Cyber-Resilient Reinforcement Learning for Secure Navigation under Adversarial Attack," *IEEE Cyber Awareness and Research Symposium*, Grand Forks, ND, October 27–30, 2025.

[39] Wanqun Yang, Mohammad R. Hajidavalloo, Zhaojian Li and **Jun Chen***, "NMPC-based Cell-Level Thermal Management of EV Batteries in Low Temperature Environment," *Modeling, Estimation and Control Conference*, Pittsburgh, PA, USA, October 5–8, 2025.

[38] Hussein Alawsi, Zhaodong Zhou, Ali Irshayyid and **Jun Chen***, "RL-assisted Model Predictive Control for Automated Parking Systems," *IEEE International Conference on Unmanned Systems*, Changzhou, China, September 18–19, 2025.

[37] Ali Irshayyid and **Jun Chen***, "GNN-Based Surrogate Model for Reconfigurable Battery Packs," *IEEE Conference on Control Technology and Applications*, San Diego, CA, August 25–27, 2025.

[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 Nuculaj, 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***, Qiuhao 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 DelVescovo*, "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.

[22] Ranya Badawi and **Jun Chen***, "Enhancing Enumeration-Based Model Predictive Control for DC-DC Boost Converter with Event-Triggered Control," *European Control Conference*, London, UK, July 12–15, 2022.

[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.

[15] **Jun Chen***, Zhaojian Li and Xiang Yin, "Optimization of Energy Storage Size and Operation for Renewable-EV Hybrid Energy Systems," *2021 IEEE Green Technologies Conference*, Denver, CO, April 7–9, 2021.

[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.

[13] **Jun Chen**, Jong S. Kim and Cristian Rabiti, "Probabilistic Analysis of Hybrid Energy Systems Using Synthetic Renewable and Load Data," *2017 American Control Conference*, Seattle, WA, May 24–26, 2017.

[12] **Jun Chen** and Humberto E. Garcia, "Operations Optimization of Hybrid Energy Systems under Variable Markets," *2016 American Control Conference*, Boston, MA, July 6–8, 2016.

[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.

[10] Mariam Ibrahim, **Jun Chen** and Ratnesh Kumar, "Quantification of Distributed Secrecy Loss in Stochastic Discrete Event Systems under Bounded-Delay Communications," *2016 IFAC/IEEE International Workshop on Discrete Event Systems*, Xi'an, China, May 30 – June 1, 2016.

[9] Mariam Ibrahim, **Jun Chen** and Ratnesh Kumar, "An Information Theoretic Measure for Secrecy Loss in Stochastic Discrete Event Systems," *2015 International Conference on Electronics, Computers and Artificial Intelligence – International Workshop on Systems, Safety and Security*, Bucharest, Romania, June 25–27, 2015.

[8] **Jun Chen** and Ratnesh Kumar, "Failure Prognosability of Stochastic Discrete Event Systems," *2014 American Control Conference*, Portland, OR, June 4–6, 2014.

[7] **Jun Chen** and Ratnesh Kumar, "Pattern Mining for Predicting Critical Events from Sequential Event Data Log," *2014 IFAC/IEEE International Workshop on Discrete Event Systems*, Paris-Cachan, France, May 14–16, 2014.

[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.

[5] **Jun Chen** and Ratnesh Kumar, "Failure Diagnosis of Discrete-Time Stochastic Systems Subject to Temporal Logic Correctness Requirements," *2014 IEEE International Conference on Networking, Sensing and Control*, Miami, FL, April 7–9, 2014.

[4] **Jun Chen** and Ratnesh Kumar, "Online Failure Diagnosis of Stochastic Discrete Event Systems," *2013 IEEE Multi-Conference on Systems and Control – IEEE Conference on Computer Aided Control System Design*, Hyderabad, India, August 28–30, 2013.

[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)

[2] **Jun Chen** and Ratnesh Kumar, "Polynomial Test for Stochastic Diagnosability of Discrete Event Systems," *2012 IEEE Conference on Automation Science and Engineering*, Seoul, Korea, August 20–24, 2012.

[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.

Thesis and Dissertation

[2] **Jun Chen**, "Failure Diagnosis and Prognosis in Stochastic Discrete-Event and Cyber-Physical Systems," Ph.D. Dissertation, Department of Electrical and Computer Engineering, Iowa State University, Ames, IA, USA, August 2014.

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