

# Jie Wen, Ph.D(USTC), Associate Professor(NUC)

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[Researchgate](#)  
[Github](#)

## Biography

I received the B.S. degree in Automation and the Ph.D. degree in Control Science and Engineering from [University of Science and Technology of China](#), Hefei, Anhui, China, in 2010 and 2015, respectively. From June 2015 to June 2017, I was a Lecturer with [School of Computer Science and Control Engineering, North University of China](#). From July 2017 to December 2024, I was a Lecturer with [School of Electrical and Control Engineering, North University of China](#). Since December 2024, I am an Associate Professor and Master's Supervisor with [School of Electrical and Control Engineering, North University of China](#). I have long been engaged in research on the control of quantum systems and prognostics and health management of lithium-ion batteries, focusing on the preparation of quantum logic gates, the stabilization control of quantum states, and the prediction of state of health/remaining useful life for lithium-ion batteries, and my related research results have been published in Automatica, Energy, IEEE Transactions on Instrumentation and Measurement, Science China Information Sciences, Chaos, Solitons & Fractals, Journal of The Franklin Institute, IFAC World Congress, CCC and other well-known journals and conferences. I have published 79 papers, of which 33 are first/corresponding authors (including 23 SCI papers), one monograph and have been granted 7 patents. I have presided over two Natural Science Foundation of Shanxi Province, one Scientific and Technological Innovation Program of Higher Education Institutions in Shanxi, and participated in three National Natural Science Foundation of China as a principal researcher. I have served as Session Co-Chair of the Chinese Control Conference (CCC) and Session Chair of the Chinese Process Control Conference (CPCC). I have been a reviewer for top control and energy journals such as Automatica, IEEE SMC, IEEE TCYB, RESS, Applied Energy, Energy, etc (more than 100 times in the last two years), and have served as a TPC member for many workshops of the flagship conferences, such as ICC, GLOBECOM, etc. I am a reviewer of [Mathematical Reviews](#) of the [American Mathematical Society](#) (No. 179743).

## Education

Ph.D. (Supervised by [Prof. Shuang Cong](#)), Control Science and Engineering, 2010.9-2015.6  
[Department of Automation, University of Science and Technology of China](#)

B.S., Automation, 2006.9-2010.7  
[Department of Automation, University of Science and Technology of China](#)

## Working Experience

Associate Professor, Dec. 2024–present.  
[School of Electrical and Control Engineering, North University of China](#)

Lecturer, Jul. 2017–Dec. 2024  
[School of Electrical and Control Engineering, North University of China](#)

Lecturer, Jun. 2015– Jun. 2017.  
[School of Computer Science and Control Engineering, North University of China](#)

## Teaching

Deep Machine Learning: Spring 2026

MATLAB language and Its Application: Spring 2026

Machine Learning and Its Application: Spring 2025

Modern Control Theory: Spring 2022, Spring 2023, Spring 2024, Spring 2025, Spring 2026

Foundation of System Modeling and Identification: Spring 2021, Spring 2022, Spring 2023, Spring 2024

MATLAB Programming: Spring 2020, Spring 2021, Spring 2022, Spring 2023, Spring 2024

System Modeling and Identification: Fall 2019, Fall 2020

Numerical Simulation of Control Systems: Fall 2016, Fall 2018, Fall 2019

System Identification: Fall 2016, Fall 2017, Fall 2018

Operational Research: Spring 2017, Fall 2017(TIT), Spring 2018, Fall 2018(TIT), Spring 2019

Electric Motor and Driving (SJIT): Fall 2015, Fall 2016, Fall 2017

System Engineering: Fall 2016

Advanced Control Theory: Fall 2016

Optimal Control: Fall 2016

Computational Methods (SJIT): Fall 2015

## Reviewer

National Undergraduate Thesis (Design) Random Inspection, Ministry of Education, 2025

Mathematical Reviews, American Mathematical Society

Lead Guest Editor of Special Issue “Advanced Control Methodologies for Quantum Systems” of Information

Outstanding Reviewer of Journal of Measurement Science and Instrumentation, 2025

### Journals

- ◇ Automatica
- ◇ IEEE Journal on Selected Areas in Communications
- ◇ IEEE Transactions on Systems, Man and Cybernetics: Systems
- ◇ IEEE Network
- ◇ IEEE Transactions on Cybernetics
- ◇ IEEE Transactions on Transportation Electrification
- ◇ IEEE Transactions on Instrumentation & Measurement
- ◇ eTransportation
- ◇ Applied Energy
- ◇ Renewable and Sustainable Energy Reviews

- ◇ Reliability Engineering & System Safety
- ◇ Information Fusion
- ◇ Energy
- ◇ Expert Systems with Applications
- ◇ Advanced Engineering Informatics
- ◇ Engineering Applications of Artificial Intelligence
- ◇ Applied Mathematical Modelling
- ◇ Electrochimica Acta
- ◇ Green Energy and Intelligent Transportation
- ◇ Chemical Engineering Science
- ◇ Journal of Power Sources
- ◇ Energy and AI
- ◇ International Journal of Fatigue
- ◇ Journal of The Franklin Institute
- ◇ Journal of Energy Storage
- ◇ Measurement
- ◇ Journal of The Electrochemical Society
- ◇ Results in Engineering
- ◇ International Journal of Electrical Power and Energy Systems
- ◇ Journal of Traffic and Transportation Engineering (English Edition)
- ◇ Energy Conversion and Management: X
- ◇ IEEE Sensors Journal
- ◇ Measurement Science and Technology
- ◇ Journal of Physics D: Applied Physics
- ◇ Energy Sources, Part A: Recovery, Utilization, and Environmental Effects
- ◇ Heliyon
- ◇ IET Control Theory & Applications
- ◇ Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering
- ◇ Scientific Reports
- ◇ Cleaner Energy Systems
- ◇ IEEE Access
- ◇ Global Energy Interconnection
- ◇ Telematics and Informatics Reports
- ◇ Batteries
- ◇ Numerical Heat Transfer, Part A: Applications
- ◇ Sensors
- ◇ Sustainability
- ◇ Franklin Open
- ◇ Automatika

- ◇ TELKOMNIKA
- ◇ Asia-Pacific Journal of Chemical Engineering
- ◇ Mathematical Problems in Engineering
- ◇ Canadian Journal of Chemical Engineering
- ◇ Journal of Measurement Science and Instrumentation
- ◇ Journal of Computational Methods in Sciences and Engineering
- ◇ British Journal of Mathematics & Computer Science
- ◇ Asian Research Journal of Mathematics
- ◇ International Journal of Computing and Digital Systems

#### Conferences

- ◇ 2026 12th International Conference on Control, Decision and Information Technologies, CoDIT 2026
- ◇ TPC Member, 2026 IEEE Global Communications Conference: Selected Areas in Communications: Reconfigurable Intelligent Surfaces and Smart Environments, IEEE GLOBECOM 2026
- ◇ The 44th Chinese Control Conference, CCC 2025
- ◇ TPC Member, 2025 IEEE International Conference on Communications: 2nd Workshop on Intelligent Movable and Reconfigurable Antennas for Future Wireless Communication and Sensing, IEEE ICC 2025
- ◇ TPC Member, 2025 IEEE Global Communications Conference: Selected Areas in Communications: Reconfigurable Intelligent Surfaces, IEEE GLOBECOM 2025
- ◇ TPC Member, 2025 IEEE International Conference on Communications: Selected Areas in Communications: Quantum Communications and Information Technology, IEEE ICC 2025
- ◇ 2025 American Control Conference, ACC 2025
- ◇ TPC Member, 2024 IEEE International Conference on Communications: Sixth International Workshop on Next Generation Antenna Technologies for Future Wireless Networks, WSO1 ICC 2024 Workshop-NGATFWN
- ◇ TPC Member, 2024 IEEE Wireless Communications and Networking Conference: WS-14: Reconfigurable Intelligent Surfaces-Empowered 3CLS for 6G and Beyond Communications
- ◇ TPC Member, 2024 IEEE International Conference on Communications: Selected Areas in Communications: Quantum Communications and Information Technology
- ◇ 2023 China Automation Congress, CAC 2023
- ◇ TPC Member, 2023 IEEE Global Communications Conference: Workshop on Reconfigurable Intelligent Surfaces-Empowered 3CLS for 6G and Beyond Communications, IEEE GLOBECOM 2023
- ◇ TPC Member, 2023 IEEE Global Communications Conference: Selected Areas in Communications: Quantum Communications and Computing, IEEE GLOBECOM 2023
- ◇ TPC Member, IEEE International Conference on Communications: Selected Areas in Communications: Quantum Communications and Information Technology, IEEE ICC 2023, IEEE ICC 2024,
- ◇ TPC Member, 2022 IEEE Global Communications Conference: Selected Areas in Communications: Quantum Communications, IEEE GLOBECOM 2022
- ◇ TPC Member, 2022 IEEE International Conference on Communications (ICC): SAC Quantum Communications and Computing Track, IEEE ICC 2022
- ◇ Session Chair, The 32th Chinese Process Control Conference, CPCC 2021
- ◇ TPC Member, 2021 IEEE Globecom Workshops: Workshop on Robust, Low-Latency and Efficient Federated Learning for 6G-Enabled Internet of Things, GC 2021 Workshop - 6GIoT

- ◇ **TPC Member**, [2021 IEEE Global Communications Conference](#): Selected Areas in Communications: Quantum Communications & Computing, IEEE GLOBECOM 2021
- ◇ **TPC Member**, [2021 IEEE International Conference on Communications](#): SAC Quantum Communications and Computing Track, ICC 2021
- ◇ [International Conference on Data Analytics for Business and Industry, DATA 2020](#)
- ◇ [International Conference on Decision Aid Sciences and Applications, DASA 2020, DASA2022](#)
- ◇ [International Conference on Control, Decision and Information Technologies, CoDIT 2018, CoDIT 2019, CoDIT 2020, CoDIT 2022, CoDIT 2023, CoDIT 2024, CoDIT 2025](#)
- ◇ **TPC Member**, [IEEE GLOBECOM Workshop on Quantum Communications and Information Technology, GC 2018 Workshop-QCIT, GC 2019 Workshop-QCIT, GC 2020 Workshop-QCIT](#)
- ◇ **Session Co-Chair**, [The 37th Chinese Control Conference, CCC 2018](#)
- ◇ [The 18th IFAC Symposium on System Identification, SYSID 2018](#)
- ◇ [The 20th World Congress of the International Federation of Automatic Control, IFAC World Congress 2017](#)
- ◇ [The 29th Chinese Control and Decision Conference, CCDC 2017](#)

## Research Fields

- ♡ Quantum Systems Control
- ♡ Prognostic and Health Management

## Grants

### Principal Investigator

1. Natural Science Foundation of Shanxi Province, Project 202403021211088, Principal investigator, 2024.07-2027.07, Amount granted ¥70,000
2. North University of China, Discipline Building Project, Principal investigator, 2023.01-2025.12, Amount granted ¥100,000
3. Scientific and Technological Innovation Programs of Higher Education Institutions in Shanxi, Project 2019L0583, Principal investigator, 2019.07-2021.06, Amount granted ¥20,000.
4. Natural Science Foundation of Shanxi Province, Project 201801D221208, Principal investigator, 2018.12-2020.12, Amount granted ¥30,000.
5. Science Foundation of North University of China, Project 2017025, Principal investigator, 2017.01-2019.12, Amount granted ¥30,000.
6. North University of China, Start-up Grant, Project 20150057, Principal investigator, 2015.09-2018.06, Amount granted ¥200,000.

### Participant

1. National Natural Science Foundation of China, Project 61803350, Participant, 2019.01-2021.12, Amount granted ¥270,000. PI: Prof. Wenya LIU
2. Natural Science Foundation of Shanxi Province, Project 201801D121159, Participant, 2018.12-2020.12, Amount granted ¥50,000. PI: Associate Prof. Yuanhao Shi
3. National Natural Science Foundation of China, Project 61573330, Participant, 2016.01-2018.12, Amount granted ¥660,000. PI: Prof. [Shuang Cong](#)

4. Science Foundation of North University of China, Project 2016O32, Participant, 2016.01-2018.12, Amount granted ¥30,000. PI: Associate Prof. Yuanhao Shi
5. National Natural Science Foundation of China, Project 51275500, Participant, 2014.01-2016.12, Amount granted ¥840,000. PI: Prof. [Weiwei SHANG](#)

## Publications<sup>1</sup>

### Books

1. **Jie Wen**, *Stabilization of Stochastic Quantum Systems (in Chinese)*, Harbin: Harbin Institute of Technology Press, Aug 2024.

### Published Papers

#### 2026

1. Ding Cheng, Jianfang Jia\*, **Jie Wen**, Yuanhao Shi, Jianchao Zeng and Yifeng Ren, [High-performance path planning in complex environments: a hierarchical adaptive neighborhood search A\\* algorithm for mobile robots](#), *Robotica*, 2026, 44(6): 1862-1886. (SCI)
2. Xinya Qiu, Jianfang Jia\*, Xiaoqiong Pang, **Jie Wen**, Yuanhao Shi and Jianchao Zeng, [A physics-guided time-decay self-attention transformer-based few-shot transfer learning for PEMFC remaining useful life prediction under data incompleteness](#), *Ionics*, 2026, 32: 7117-7132. (SCI)
3. Han Li, Yifeng Ren\*, Zhiliang Zhao and **Jie Wen**, [Resilient distributed optimization for nonlinear multi-agent systems with denial-of-service attacks and quantization](#), *Journal of the Franklin Institute*, 2026, 363(9): 108567. (SCI)
4. **Jie Wen**\*, [Exponential Stabilization of Stochastic Quantum Systems Based on Time-delay State Feedback](#), *Romanian Journal of Physics*, 2026, 71(5-6): 107. (SCI)
5. Xiaoqiong Pang\*, Xiaotong Zhang, Ziyao Guo, Jianfang Jia, **Jie Wen**, Yuanhao Shi and Jianchao Zeng, [TFDDA: a time-frequency deep domain adaptation method for cross-domain state of health estimation of lithium-ion batteries](#), *Engineering Research Express*, 2026, 8(4): 045210. (SCI)
6. **Jie Wen**\*, [Exponentially stabilizing two-level stochastic quantum systems via improved noise-assisted feedback](#), *European Physical Journal Plus*, 2026, 141:113. (SCI)

#### 2025

1. **Jie Wen**\*, Chenyu Jia and Guangshu Xia, [State of health prediction of lithium-ion batteries for driving conditions based on full parameter domain sparrow search algorithm and dual-module bidirectional gated recurrent unit](#), *Energy*, 2025, 335: 138292. (SCI)
2. Chenyu Jia, Guangshu Xia, Yuanhao Shi, Jianfang Jia, **Jie Wen**\* and Jianchao Zeng, [Incremental Capacity-Based Multi-Feature Fusion Model for Predicting State-of-Health of Lithium-Ion Batteries](#), *IEEE Transactions on Instrumentation and Measurement*, 2025, 74: 3558215. (SCI)
3. Nan Wang, Yuanhao Shi\*, Fangshu Cui, **Jie Wen**, Jianfang Jia and Bohui Wang\*, [Improving the Heat Transfer Efficiency of Economizers: A Comprehensive Strategy Based on Machine Learning and Quantile Ideas](#), *Energies*, 2025, 18(16): 4227. (SCI)
4. Chunsheng Cui, Guangshu Xia, Chenyu Jia and **Jie Wen**\*, [Remaining Useful Life Interval Prediction for Lithium-Ion Batteries via Periodic Time Series and Trend Filtering Segmentation-Based Fuzzy Information Granulation](#), *World Electric Vehicle Journal*, 2025, 16(7): 356. (EI)
5. Xiaoqiong Pang\*, Ziyao Guo, Jianfang Jia, **Jie Wen**, Xiaojie Li, Jianchao Zeng and Jiashuo Zhang, [A distribution-free interval estimation method for lithium-ion battery state of health](#), *Ionics*, 2025. (SCI)

<sup>1</sup>\*: Corresponding author; #: Equal contribution.

6. Xiaoqiong Pang\*, Xiao Li, Jonghoon Kim, Miyoung Lee, Zhen Zhao, **Jie Wen** and Jianchao Zeng, [Interval prediction strategy for the remaining useful life of lithium-ion battery pack considering cell inconsistency](#), *Journal of Power Electronics*, 2025. (SCI)
7. Chunsheng Cui, Guangshu Xia, Chenyu Jia and **Jie Wen\***, [A Novel Construction Method and Prediction Framework of Periodic Time Series: Application to State of Health Prediction of Lithium-Ion Batteries](#), *Energies*, 2025, 18(6): 1438. (SCI)
8. Guangshu Xia, Chenyu Jia, Yuanhao Shi, Jianfang Jia, Xiaoqiong Pang, **Jie Wen\*** and Jianchao Zeng, [Remaining Useful Life Prediction of Lithium-Ion Batteries Based on Trend Filtering Segmentation and Fuzzy Information Granulation](#), *Energy*, 2025, 318: 134810. (SCI)
9. Shuang Cong\*, Zhixiang Dong, **Jie Wen** and Kezhi Li, [Online Estimated-based-state Feedback Control of n-Qubit Stochastic Open Quantum Systems](#), *Automatica*, 2025, 171: 111883. (SCI)

## 2024

1. Guiying Cheng, Jianfang Jia\*, Xiaoqiong Pang, **Jie Wen**, Yuanhao Shi and Jianchao Zeng, [DFE-SLAM: Dynamic SLAM based on improved feature extraction](#), 2024 *China Automation Congress*, Qingdao, 2024: 11.1-11.3. (EI)
2. SiYuan Cui, Jianfang Jia\*, Xiaoqiong Pang, **Jie Wen**, Yuanhao Shi, Jianchao Zeng, [A Data-Driven Method With Sample Entropy and CEEMDAN for Short-Term Performance Degradation Prediction of Dynamic Hydrogen Fuel Cells](#), *International Journal of Hydrogen Energy*, 2024, 83: 916-932. (SCI)
3. **Jie Wen\*** and Fangling Wang, [Stable Levitation of Single-point Levitation Systems for Maglev Trains by Improved Cascade Control](#), *Romanian Journal of Information Science and Technology*, 2024, 27(3-4): 348-361. (SCI)
4. **Jie Wen\*** and Fangmin Wang, [Exponential Stabilization of Stochastic Quantum Systems Based on Time-delay Noise-assisted Feedback](#), *Chaos, Solitons & Fractals*, 2024, 186: 115228. (SCI)
5. Wenwen Zhang, Jianfang Jia\*, Xiaoqiong Pang, **Jie Wen**, Yuanhao Shi and Jianchao Zeng, [An Improved Transformer Model for Remaining Useful Life Prediction of Lithium-Ion Batteries Under Random Charging and Discharging](#), *Electronics*, 2024, 13(8): 1423. (SCI)

## 2023

1. Tianxiang Han, Yuanhao Shi\*, Fangshu Cui, **Jie Wen**, Yongtao Hu and Gangzhu Qiao, [Ash Accumulation Prediction in Coal-Fired Power Plant Boilers Based on GWO-VMD-BiLSTM](#), 2023 *China Automation Congress*, Chongqing, 2023: 11.17-11.19. (EI)
2. Jianfang Jia\*, Han Zhang, Wenwen Zhang, **Jie Wen**, Yuanhao Shi and Jianchao Zeng, [Interval Prediction of Lithium-Ion Battery Health State Based on Charging Feature Fusion and LSTMQR](#), 2023 *China Automation Congress*, Chongqing, 2023: 11.17-11.19. (EI)
3. Xiaoqiong Pang\*, Yuanchang Dong, Jianchao Zeng, Jianfang Jia, **Jie Wen** and Yuanhao Shi, [Remaining Useful Life Prediction of Lithium-ion Batteries Based on Singular Value Decomposition and Gaussian Process Regression](#), 2023 *China Automation Congress*, Chongqing, 2023: 11.17-11.19. (EI)
4. Chenyu Jia#, Yukai Tian#, Yuanhao Shi, Jianfang Jia, **Jie Wen\*** and Jianchao Zeng, [State of Health Prediction of Lithium-ion Batteries Based on Bidirectional Gated Recurrent Unit and Transformer](#), *Energy*, 2023, 285: 129401. (SCI)
5. **Jie Wen\***, Yuanhao Shi, Xiaoqiong Pang, Jianfang Jia and Jianchao Zeng\*, [Global Exponential Stabilization of Eigenstates for Quantum Spin- \$\frac{1}{2}\$  Systems via Improved Feedback Control](#), *Journal of The Franklin Institute*, 2023, 360(17): 13798-13821. (SCI)
6. Jiangwei You, Jianfang Jia\*, Xiaoqiong Pang, **Jie Wen**, Yuanhao Shi, Jianchao Zeng, [A Novel Multi-Robot Task Assignment Scheme Based on a Multi-Angle K-Means Clustering Algorithm and a Two-Stage Load-Balancing Strategy](#), *Electronics* 2023, 12: 3842. (SCI)
7. Yuanhao Shi\*, Tianxiang Han, Fangshu Cui, **Jie Wen**, Jianfang Jia, Xiaoqiong Pang, [A hybrid prediction approach for enhancing heat transfer efficiency of coal-fired power plant boiler](#), *Energy Reports*, 2023, 9(8): 658-668. (SCI)

8. Xiaoqiong Pang<sup>\*,#</sup>, Zhen Zhao<sup>#</sup>, **Jie Wen**, Jianfang Jia, Yuanhao Shi, Jianchao Zeng and Lixin Zhang, [Considering the self-adaptive segmentation of time series in interval prediction of remaining useful life for lithium-ion battery](#), *Journal of Energy Storage*, 2023, 70: 107862. (SCI)
9. Yuanchang Dong, Xiaoqiong Pang<sup>\*</sup>, Jianfang Jia, Yuanhao Shi, **Jie Wen**, Xiao Li, Xin Zhang, [Remaining useful life prediction of lithium-ion batteries based on SVD-SAE-GPR](#), *Energy Storage Science and Technology*, 2023, 12(4): 1257-1267.
10. **Jie Wen**<sup>\*,#</sup>, Fangmin Wang<sup>#</sup>, Yuanhao Shi, Jianfang Jia and Jianchao Zeng<sup>\*</sup>, [Rapid Stabilization of Stochastic Quantum Systems in A Unified Framework](#), *Chinese Physics B*, 2023, 32: 070203. (SCI)
11. Yanru Yang, **Jie Wen**<sup>\*</sup>, Jianyu Liang, Yuanhao Shi, Yukai Tian and Jiang Wang, [Remaining Useful Life Prediction for Lithium-Ion Batteries Based on the Partial Voltage and Temperature](#), *Sustainability*, 2023, 15(2): 1602. (SSCI, SCI)

## 2022

1. **Jie Wen**<sup>\*</sup>, Jikuo Wu, Yukai Tian, [Levitation Control of Maglev Systems Based on Cascade Control](#), 2022 China Automation Congress, Xiamen, 2022: 11.25-11.27. (EI)
2. Yuanhao Shi, Tianxiang Han, Fangshu Cui, **Jie Wen** and Gangzhu Qiao, [A GM-TCN based Hybrid Prediction Method for Ash Fouling Prediction in Coal-fired Power Plant Boiler](#), 2022 China Automation Congress, Xiamen, 2022: 11.25-11.27. (EI)
3. Yuanhao Shi, Jiang Wang, **Jie Wen** and Jianfeng Cui, [A Hybrid Trajectory Prediction Method for High Speed Targets based on WD-LSTM](#), 2022 China Automation Congress, Xiamen, 2022: 11.25-11.27. (EI)
4. Yuanhao Shi<sup>\*</sup>, Mengwei Li, Jiang Wang, **Jie Wen**, Fangshu Cui and Gangzhu Qiao, [Prediction of Ash Deposition on Heating Surfaces of Coal-fired Power Plant Boiler based on Dynamic Neural Network](#), 2022 34th Chinese Control and Decision Conference, Hefei, 2022: 8.15-8.17. (EI)
5. Yukai Tian, **Jie Wen**<sup>\*</sup>, Yanru Yang, Yuanhao Shi and Jianchao Zeng<sup>\*</sup>, [State-of-Health Prediction of Lithium-Ion Batteries Based on CNN-BiLSTM-AM](#), *Batteries*, 2022, 8(10): 155. (SCI)
6. Yuanhao Shi<sup>\*</sup>, Mengwei Li, **Jie Wen**, Yanru Yang and Jianchao Zeng, [Deep Learning-Based Approach for Heat Transfer Efficiency Prediction with Deep Feature Extraction](#), *ACS Omega*, 2022, 7(35): 31013–31035. (SCI)
7. Xiaoqiong Pang<sup>\*,#</sup>, Zhen Zhao<sup>#</sup>, **Jie Wen**, Yuanhao Shi, Jianfang Jia, Jianchao Zeng and Yuanchang Dong, [An Interval Prediction Approach Based on Fuzzy Information Granulation and Linguistic Description for Remaining Useful Life of Lithium-ion Batteries](#), *Journal of Power Sources*, 2022, 542: 231750. (SCI)
8. **Jie Wen**<sup>\*</sup>, Yuanhao Shi, Jianfang Jia and Jianchao Zeng, [Exponential Stabilization of Spin- \$\frac{1}{2}\$  Systems Based on Switching State Feedback](#), *Romanian Journal of Physics*, 2022, 67(9-10): 119. (SCI)
9. **Jie Wen**<sup>\*,#</sup>, Fangmin Wang<sup>#</sup>, Yuanhao Shi, Jianfang Jia and Jianchao Zeng<sup>\*</sup>, [Feedback exponential stabilization of stochastic quantum systems based on state space division](#), *Results in Physics*, 2022, 37: 105525. (SCI)
10. Jianfang Jia<sup>\*</sup>, Shufang Yuan, Yuanhao Shi, **Jie Wen**, Xiaoqiong Pang and Jianchao Zeng, [Improved Sparrow Search Algorithm Optimization Deep Extreme Learning Machine for Lithium-ion Battery State-of-health Prediction](#), *iScience*, 2022, 25(4): 103988. (SCI)
11. **Jie Wen**<sup>\*</sup>, Yuanhao Shi, Xiaoqiong Pang and Jianfang Jia, [Optimal Soot Blowing and Repair Plan for Boiler Based on HJB Equation](#), *Optimization*, 2022, 71(16): 4603-4622. (SCI)

## 2021

1. Xiaoqiong Pang<sup>\*</sup>, Xiaoyan Liu, Jianfang Jia<sup>\*</sup>, **Jie Wen**, Yuanhao Shi<sup>\*</sup>, Jianchao Zeng and Zhen Zhao, [A lithium-ion battery remaining useful life prediction method based on the incremental capacity analysis and Gaussian process regression](#), *Microelectronics Reliability*, 2021, 127: 114405. (SCI)
2. Yanru Yang, **Jie Wen**<sup>\*</sup>, Yuanhao Shi, Jianfang Jia, Mengwei Li and Jianchao Zeng, [Remaining Useful Life Prediction of Lithium-ion Batteries based on the Discharge Voltage](#), 2021 China Automation Congress, Beijing, 2021: 10.22-10.24. (EI)

3. **Jie Wen\***, Yuanhao Shi, Jianfang Jia and Jianchao Zeng\*, [Exponential Stabilization of Stochastic Quantum Systems via Combined Feedback](#), *Results in Physics*, 2021, 30: 104862. (SCI)
4. Yuanhao Shi\*, Zehui Zhang, Mengwei Li, **Jie Wen** and Fangshu Cui, [Soot Blowing Optimization for Coal-fired Boilers with Ash Accelerated Deposition Model based on Gamma Process](#), *The 40th Chinese Control Conference*, Shanghai, 2021: 7.26-7.28. (EI)
5. Jianfang Jia\*, Keke Wang, Yuanhao Shi, **Jie Wen**, Xiaoqiong Pang and Jianchao Zeng, [A Multi-scale State of Health Prediction Framework of Lithium-ion Batteries Considering the Temperature Variation During Battery Discharge](#), *Journal of Energy Storage*, 2021, 42: 103076. (SCI)
6. Yuanhao Shi\*, Mengwei Li, Fangshu Cui, **Jie Wen** and Jianchao Zeng\*, [A Neural-Network-Based Method for Ash Fouling Prediction of Heat Transfer Surface in Coal-Fired Power Plant Boiler](#), *IEEE Access*, 2021, 9(1): 109584-109604. (SCI)
7. Yuanhao Shi\*, Mengwei Li, **Jie Wen**, Yanru Yang, Fangshu Cui and Jianchao Zeng\*, [Heat Transfer Efficiency Prediction of Coal-Fired Power Plant Boiler Based on CEEMDAN-NAR Considering Ash Fouling](#), *Energies*, 2021, 14(13): 4000. (SCI)
8. Yanru Yang, **Jie Wen\***, Yuanhao Shi and Jianchao Zeng\*, [State of Health Prediction of Lithium-ion Batteries based on the Discharge Voltage and Temperature](#), *Electronics*, 2021, 10(12): 1497. (SCI)
9. **Jie Wen\***, Yuanhao Shi, Jianfang Jia and Jianchao Zeng\*, [Exponential Stabilization of Two-level Quantum Systems Based on Continuous Noise-assisted Feedback](#), *Results in Physics*, 2021, 22: 103929. (SCI)
10. Jianfang Jia\*, Keke Wang, Xiaoqiong Pang, Yuanhao Shi, **Jie Wen**, and Jianchao Zeng, [Multi-Scale Prediction of RUL and SOH for Lithium-Ion Batteries Based on WNN-UPF Combined Model](#), *Chinese Journal of Electronics*, 2021, 30(1): 26-35. (SCI)

## 2020

1. Yanru Yang, **Jie Wen\***, Yuanhao Shi, Zehui Zhang and Wenhui Liu, [Remaining Useful Life Prediction for Lithium-ion Battery Based on CEEMDAN and SVR](#), *Journal of Electronic Measurement and Instrumentation*, 2020, 34(12): 197-205.
2. Mengwei Li, Yuanhao Shi\*, Fangshu Cui, **Jie Wen**, and Jianchao Zeng, [Research on Gray Prediction of Heated Surface Combining Empirical Mode Decomposition and Long Short-term Memory Network](#), *The 16th IEEE International Conference on Control, Automation, Robotics and Vision*, Shenzhen, 2020: 12.13-12.15. (EI)
3. **Jie Wen\***, Yuanhao Shi, Xiaoqiong Pang, Jianfang Jia, and Jianchao Zeng\*, [Rapid Stabilization of Time Delay Stochastic Quantum Systems based on Continuous Measurement Feedback](#), *Journal of The Franklin Institute*, 2020, 357(12): 7515-7536. (SCI)
4. Jianfang Jia\*, Jianyu Liang, Yuanhao Shi, **Jie Wen**, Xiaoqiong Pang, and Jianchao Zeng, [SOH and RUL Prediction of Lithium-Ion Batteries Based on Gaussian Process Regression with Indirect Health Indicators](#), *Energies*, 2020, 13(2), 375. (SCI)

## 2019

1. Yuanhao Shi\*, Qiang Li, **Jie Wen**, Fangshu Cui, Xiaoqiong Pang, Jianfang Jia, Jianchao Zeng and Jingcheng Wang, [Soot Blowing Optimization for Frequency in Economizers to Improve Boiler Performance in Coal-Fired Power Plant](#), *Energies*, 2019, 12(15), 2901. (SCI)
2. Xiaoqiong Pang\*, Rui Huang, **Jie Wen**, Yuanhao Shi, Jianfang Jia and Jianchao Zeng, [A Lithium-ion Battery RUL Prediction Method Considering the Capacity Regeneration Phenomenon](#), *Energies*, 2019, 12(12), 2247. (SCI)
3. Xiaoqiong Pang\*, Zhuqing Wang, Jianchao Zeng, Jianfang Jia, Yuanhao Shi and **Jie Wen**, [Prediction for the Remaining Useful Life of Lithium-ion Battery Based on PCA-NARX](#), *Transactions of Beijing Institute of Technology*, 2019, 39(4): 406-412. (EI)
4. Yuanhao Shi\*, **Jie Wen**, Fangshu Cui, and Jingcheng Wang, [An Optimization Study on Soot-Blowing of Air Preheaters in Coal-Fired Power Plant Boilers](#), *Energies*, 2019, 12(5), 958. (SCI)
5. **Jie Wen\***, Yuanhao Shi, Xiaoqiong Pang, Jianfang Jia and Jianchao Zeng\*, [Optimization of Boiler Soot Blowing Based on Hamilton-Jacobi-Bellman Equation](#), *IEEE Access*, 2019, 7(1): 20850-20862. (SCI)

## 2018

1. **Jie Wen\***, Yuanhao Shi and Xiaonong Lu, [Stabilizing a Class of Mixed States for Stochastic Quantum Systems via Switching Control](#), *Journal of The Franklin Institute*, 2018, 355(5): 2562-2582. (SCI)
2. Zhuqing Wang\*, Xiaoqiong Pang, Rui Huang, Jianfang Jia, Yuanhao Shi and **Jie Wen**, [KPCA-ANFIS based Remaining Useful Life Prediction of Lithium-ion Battery](#), *Journal of Electronic Measurement and Instrumentation*, 2018, 32(10): 26-32.
3. **Jie Wen\***, Yuanhao Shi, Xiaoqiong Pang, Jianfang Jia and Jianchao Zeng\*, [Optimal Soot Blowing Strategies in Boiler Systems with Variable Steam Flow](#), *The 37th Chinese Control Conference*, Wuhan, 2018: 7.25-8.27. (EI)
4. Yuanhao Shi\*, **Jie Wen**, Xiaoqiong Pang, Jianfang Jia, Fangshu Cui, Jianchao Zeng, and Jingcheng Wang, [Preventive Soot Blowing Strategy based on State of Health Prediction for Coal-fired Power Plant Boiler](#), *The 37th Chinese Control Conference*, Wuhan, 2018: 7.25-8.27. (EI)

## 2017

1. **Jie Wen\***, Yuanhao Shi and Xiaonong Lu, [Stabilizing a Rotary Inverted Pendulum Based on Logarithmic Lyapunov Function](#), *Journal of Control Science and Engineering*, 2017, 2017: 4091302. (EI)
2. Yuedong Wang, Du Lin, Hao Xian, **Jie Wen**, and Wei Liang, [Research on the Control Method of Aeroengine Based on Lyapunov Function](#), *Sci-tech Innovation and Productivity*, 2017, 281: 110-113.
3. Yuanhao Shi\*, **Jie Wen**, Jingcheng Wang, Prediction Model of Ash Fouling for Air PreHeaters in Coal-fired Power Plant Boiler, *The 28th Chinese Process Control Conference*, Chongqing, 2017: 7.30-8.01.
4. Shuang Cong\*, **Jie Wen**, Fangfang Meng and Kezhi Li, [Global Stabilization of Mixed-states for Stochastic Quantum Systems via Switching Control](#), *The 20th World Congress of the International Federation of Automatic Control*, Toulouse, 2017: 7.09-7.14. (EI)
5. **Jie Wen\***, Yuanhao Shi and Xiaonong Lu, [Stabilizing a Rotary Inverted Pendulum Based on Lyapunov Stability Theorem](#), *The 29th Chinese Control and Decision Conference*, Chongqing, 2017: 5.28-5.30. (EI)
6. Yuanhao Shi\*, Jingcheng Wang and **Jie Wen**, [On-line Monitoring of Ash Fouling for Air Pre-Heaters in Coal-fired Power Plant Boiler](#), *The 29th Chinese Control and Decision Conference*, Chongqing, 2017: 5.28-5.30. (EI)

## 2016

1. Shuang Cong\*, **Jie Wen**, Sen Kuang and Fangfang Meng, [Global Stabilization Control of Stochastic Quantum Systems](#), *SCIENCE CHINA Information Sciences*, 2016, 59(11): 112502. doi: 10.1007/s11432-015-0911-7 (SCI)
2. **Jie Wen**, Shuang Cong\*, [Preparation of Quantum Gates for Open Quantum Systems by Lyapunov Control Method](#), *Open Systems & Information Dynamics*, 2016, 23(01): 1650005. (SCI)
3. Shuang Cong\*, **Jie Wen**, Sen Kuang and Fangfang Meng, [Global Stabilization of an Eigenstate for Stochastic Quantum Systems](#), *IEEE International Conference on Control & Automation*, Kathmandu, 2016: 6.01-6.03. (EI)

## Before 2016

1. Shuang Cong\*, **Jie Wen** and Xubo Zou, [Comparison of Time Optimal Control for Two Level Quantum Systems](#), *Journal of Systems Engineering and Electronics*, 2014, 25(1): 95-103. (SCI)
2. Shuang Cong\*, Longzhen Hu, Jingjing Xue and **Jie Wen**, [Characteristic Analysis of Stochastic Open Quantum Systems via Lyapunov-based Control](#), *Science & Technology Review*, 2014, 32(22): 15-22.
3. **Jie Wen**, Shuang Cong\*, [Lyapunov-based Control for the Operator Preparation in Markovian Open Quantum Systems](#), *IEEE International Conference on Information and Automation*, Hailar, 2014: 7.28-7.30. (EI)
4. **Jie Wen**, Shuang Cong\* and Xubo Zou, [Realization of Quantum Hadamard Gate Based on Lyapunov Method](#), *The 10th World Congress on Intelligent Control and Automation*, Beijing, 2012: 7.06-7.08. (EI)
5. **Jie Wen**, Shuang Cong\*, [Transfer from Arbitrary Pure State to Target Mixed State for Quantum Systems](#), *The 18th World Congress of the International Federation of Automatic Control*, Milano, 2011: 8.28-9.02. (EI)

## Patents

1. Jianfang Jia, **Jie Wen**, Shufang Yuan, Yuanhao Shi, Xiaoqiong Pang, Hao Liu, Jianchao Zeng, ZL202111311076.2
2. Jianfang Jia, **Jie Wen**, Keke Wang, Yuanhao Shi, Xiaoqiong Pang, Jianchao Zeng, ZL20211085 1950.5
3. Jianfang Jia, **Jie Wen**, Keke Wang, Yuanhao Shi, Xiaoqiong Pang, Jianyu Liang, Jianchao Zeng, ZL202010800353.5
4. Yuanhao Shi, Xiaolong Chen, **Jie Wen**, Jianfang Jia, Xiaoqiong Pang, Jianchao Zeng, Zhiqin Jia, Zehui Zhang, ZL201811476775.0
5. Yuanhao Shi, Qiang Li, Fangshu Cui, **Jie Wen**, Jianchao Zeng, Guojun Zhang, Yanting Wang, Fengyi Chu, ZL201811476887.6
6. Xiaoqiong Pang, Zhuqing Wang, Jianchao Zeng, Yuanhao Shi, Jianfang Jia, **Jie Wen**, ZL2018 10989186.6
7. Xiaoqiong Pang, Yuanhao Shi, **Jie Wen**, ZL201610828057.X

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