Zheng Zhang

List of Publications by Year
in descending order

92 papers	4,260 citations	257450 24 h-index	161849 54 g-index
92 all docs	92 docs citations	92 times ranked	3086 citing authors

#	Article	IF	Citations
1	Long Short-Term Memory Recurrent Neural Network for Remaining Useful Life Prediction of Lithium-Ion Batteries. IEEE Transactions on Vehicular Technology, 2018, 67, 5695-5705.	6.3	723
2	Critical Review on the Battery State of Charge Estimation Methods for Electric Vehicles. IEEE Access, 2018, 6, 1832-1843.	4.2	606
3	State-of-Charge Estimation of the Lithium-Ion Battery Using an Adaptive Extended Kalman Filter Based on an Improved Thevenin Model. IEEE Transactions on Vehicular Technology, 2011, 60, 1461-1469.	6.3	597
4	Evaluation on State of Charge Estimation of Batteries With Adaptive Extended Kalman Filter by Experiment Approach. IEEE Transactions on Vehicular Technology, 2013, 62, 108-117.	6.3	342
5	Lithium-Ion Battery Health Prognosis Based on a Real Battery Management System Used in Electric Vehicles. IEEE Transactions on Vehicular Technology, 2019, 68, 4110-4121.	6.3	269
6	Lithium-Ion Battery Remaining Useful Life Prediction With Box–Cox Transformation and Monte Carlo Simulation. IEEE Transactions on Industrial Electronics, 2019, 66, 1585-1597.	7.9	159
7	Noise-Immune Model Identification and State-of-Charge Estimation for Lithium-Ion Battery Using Bilinear Parameterization. IEEE Transactions on Industrial Electronics, 2021, 68, 312-323.	7.9	140
8	Application Study on the Dynamic Programming Algorithm for Energy Management of Plug-in Hybrid Electric Vehicles. Energies, 2015, 8, 3225-3244.	3.1	130
9	ARIMA-Based Road Gradient and Vehicle Velocity Prediction for Hybrid Electric Vehicle Energy Management. IEEE Transactions on Vehicular Technology, 2019, 68, 5309-5320.	6.3	94
10	A novel method on estimating the degradation and state of charge of lithium-ion batteries used for electrical vehicles. Applied Energy, 2017, 207, 336-345.	10.1	91
11	Disturbance-Immune and Aging-Robust Internal Short Circuit Diagnostic for Lithium-Ion Battery. IEEE Transactions on Industrial Electronics, 2022, 69, 1988-1999.	7.9	71
12	Load Current and State-of-Charge Coestimation for Current Sensor-Free Lithium-Ion Battery. IEEE Transactions on Power Electronics, 2021, 36, 10970-10975.	7.9	69
13	Multistage State of Health Estimation of Lithium-Ion Battery With High Tolerance to Heavily Partial Charging. IEEE Transactions on Power Electronics, 2022, 37, 7432-7442.	7.9	65
14	Structural analysis based sensors fault detection and isolation of cylindrical lithium-ion batteries in automotive applications. Control Engineering Practice, 2016, 52, 46-58.	5.5	59
15	A Rule-Based Energy Management Strategy for a Plug-in Hybrid School Bus Based on a Controller Area Network Bus. Energies, 2015, 8, 5122-5142.	3.1	52
16	Optimal Design of a Hybrid Energy Storage System in a Plug-In Hybrid Electric Vehicle for Battery Lifetime Improvement. IEEE Access, 2020, 8, 142148-142158.	4.2	51
17	State of Health Estimation of Lithium-Ion Battery Based on Constant-Voltage Charging Reconstruction. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2023, 11, 4393-4402.	5.4	49
18	An Improved Energy Management Strategy for Hybrid Electric Vehicles Integrating Multistates of Vehicle-Traffic Information. IEEE Transactions on Transportation Electrification, 2021, 7, 1161-1172.	7.8	46

#	Article	IF	Citations
19	Battery Optimal Sizing Under a Synergistic Framework With DQN-Based Power Managements for the Fuel Cell Hybrid Powertrain. IEEE Transactions on Transportation Electrification, 2022, 8, 36-47.	7.8	44
20	Research on an Online Identification Algorithm for a Thevenin Battery Model by an Experimental Approach. International Journal of Green Energy, 2015, 12, 272-278.	3.8	37
21	Integrated chassis control for a three-axle electric bus with distributed driving motors and active rear steering system. Vehicle System Dynamics, 2017, 55, 601-625.	3.7	37
22	Adaptive Potential Field-Based Path Planning for Complex Autonomous Driving Scenarios. IEEE Access, 2020, 8, 225294-225305.	4.2	33
23	Electrochemical–thermal modeling for a ternary lithium ion battery during discharging and driving cycle testing. RSC Advances, 2015, 5, 57599-57607.	3.6	28
24	Stochastic Model Predictive Control of Air Conditioning System for Electric Vehicles: Sensitivity Study, Comparison, and Improvement. IEEE Transactions on Industrial Informatics, 2018, 14, 4179-4189.	11.3	28
25	Simulation Research on an Electric Vehicle Chassis System Based on a Collaborative Control System. Energies, 2013, 6, 312-328.	3.1	24
26	A Real-Time Joint Estimator for Model Parameters and State of Charge of Lithium-Ion Batteries in Electric Vehicles. Energies, 2015, 8, 8594-8612.	3.1	24
27	Regenerative Fuel Cell-Battery-Supercapacitor Hybrid Power System Modeling and Improved Rule-Based Energy Management for Vehicle Application. Journal of Energy Engineering - ASCE, 2020, 146, .	1.9	23
28	Hierarchical Sizing and Power Distribution Strategy for Hybrid Energy Storage System. Automotive Innovation, 2021, 4, 440-447.	5.1	22
29	Global Optimal Energy Management Strategy Research for a Plug-In Series-Parallel Hybrid Electric Bus by Using Dynamic Programming. Mathematical Problems in Engineering, 2013, 2013, 1-11.	1.1	21
30	Continuous Reinforcement Learning-Based Energy Management Strategy for Hybrid Electric-Tracked Vehicles. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2023, 11, 19-31.	5.4	21
31	Hybrid Path Planning Combining Potential Field with Sigmoid Curve for Autonomous Driving. Sensors, 2020, 20, 7197.	3.8	20
32	An integrated control strategy for the composite braking system of an electric vehicle with independently driven axles. Vehicle System Dynamics, 2016, 54, 1031-1052.	3.7	19
33	An Online Adaptive Internal Short Circuit Detection Method of Lithium-Ion Battery. Automotive Innovation, 2021, 4, 93-102.	5.1	19
34	Residual Statistics-Based Current Sensor Fault Diagnosis for Smart Battery Management. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 2435-2444.	5.4	18
35	Freeway Driving Cycle Construction Based on Real-Time Traffic Information and Global Optimal Energy Management for Plug-In Hybrid Electric Vehicles. Energies, 2017, 10, 1796.	3.1	17
36	Structural Analysis Based Fault Detection and Isolation Applied for A Lithium-Ion Battery Pack. IFAC-PapersOnLine, 2015, 48, 1465-1470.	0.9	16

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37	Optimal design of adaptive shaking vibration control for electric vehicles. Vehicle System Dynamics, 2019, 57, 134-159.	3.7	16
38	Microfluidic direct methanol fuel cell by electrophoretic deposition of platinum/carbon nanotubes on electrode surface. International Journal of Energy Research, 2015, 39, 1430-1436.	4.5	14
39	Polymer separator and low fuel concentration to minimize crossover in microfluidic direct methanol fuel cells. International Journal of Energy Research, 2015, 39, 643-647.	4.5	13
40	An Improved SOC Estimator Using Time-Varying Discrete Sliding Mode Observer. IEEE Access, 2019, 7, 115463-115472.	4.2	13
41	Field Synergy Analysis and Optimization of the Thermal Behavior of Lithium Ion Battery Packs. Energies, 2017, 10, 81.	3.1	12
42	Integrated control method for a fuel cell hybrid system. Asia-Pacific Journal of Chemical Engineering, 2009, 4, 68-72.	1.5	11
43	A Predictive Distribution Model for Cooperative Braking System of an Electric Vehicle. Mathematical Problems in Engineering, 2014, 2014, 1-11.	1.1	11
44	Rapid, simple and low cost fabrication of a microfluidic direct methanol fuel cell based on polydimethylsiloxane. Microsystem Technologies, 2014, 20, 493-498.	2.0	9
45	Vehicle Velocity Estimation Fusion with Kinematic Integral and Empirical Correction on Multi-Timescales. Energies, 2019, 12, 1242.	3.1	7
46	Evaluation of the model-based state-of-charge estimation methods for lithium-ion batteries. , 2016, , .		6
47	Analysis and Design of Drivetrain Control for the AEV With Network-Induced Compounding-Construction Loop Delays. IEEE Transactions on Vehicular Technology, 2021, 70, 5578-5591.	6.3	6
48	Adaptive Sliding Mode Control Integrating with RBFNN for Proton Exchange Membrane Fuel Cell Power Conditioning. Applied Sciences (Switzerland), 2022, 12, 3132.	2.5	6
49	Research of fuzzy logic control strategy for engine start/stop in dual-clutch hybrid electric vehicle. , 2010, , .		5
50	Hierarchical Control Strategy for the Cooperative Braking System of Electric Vehicle. Scientific World Journal, The, 2015, 2015, 1-11.	2.1	5
51	Path Planning and Following Control of Autonomous Bus Under Time-Varying Parameters Against Parametric Uncertainties and External Disturbances. IEEE Transactions on Vehicular Technology, 2022, 71, 7057-7070.	6.3	5
52	Research on the Energy-Saving Strategy of Path Planning for Electric Vehicles Considering Traffic Information. Energies, 2019, 12, 3601.	3.1	4
53	Industrial Process Modeling and Fault Detection with Recurrent Kalman Variational Autoencoder. , 2020, , .		4
54	City buses' future velocity prediction for multiple driving cycle: A meta supervised learning solution. IET Intelligent Transport Systems, 2021, 15, 359-370.	3.0	4

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55	Energy Management Strategy for Plug-in Hybrid Electric Bus based on Improved Deep Deterministic Policy Gradient Algorithm with Prioritized Replay. , 2021, , .		4
56	Control strategy optimization for hybrid electric vehicle based on DIRECT algorithm. , 2008, , .		3
57	A Hierarchical Predictive Strategy-Based Hydrogen Stoichiometry Control for Automotive Fuel Cell Power System. , 2019, , .		3
58	Active Thermal Management for an Automotive Water-Cooled Proton Exchange Membrane Fuel Cell by Using Feedback Control. , 2020, , .		3
59	A Computationally Efficiency Optimal Design for a Permanent Magnet Synchronous Motor in Hybrid Electric Vehicles. , 2020, , .		3
60	An Economic Driving Energy Management Strategy for the Fuel Cell Bus. IEEE Transactions on Transportation Electrification, 2023, 9, 5074-5084.	7.8	3
61	Study on Fuzzy Logic Control Strategy of ISG hybrid system. , 2010, , .		2
62	Shift control strategy simulation on dual motor driven electric vehicle. , 2014, , .		2
63	A neural network-based method with data preprocess for fault diagnosis of drive system in battery electric vehicles. , 2017, , .		2
64	Online estimation for parameters and state-of-charge of LiMn2O2 batteries with a modified adaptive Kalman filter. Energy Procedia, 2019, 159, 497-502.	1.8	2
65	Machine learning algorithm based battery modeling and management method: A Cyber-Physical System perspective. , 2019, , .		2
66	Bidirectional Boost Converter via Adaptive Sliding-Mode Control Used for Battery Active Equalization. , 2019, , .		2
67	State of Health Estimation of Li-ion Battery Based on Regional Constant Voltage Charging. , 2021, , .		2
68	Battery Thermal-conscious Energy Management for Hybrid Electric Bus Based on Fully-continuous Control with Deep Reinforcement Learning. , 2021, , .		2
69	Study on Control Strategy and Simulation for Parallel Hybrid Electric Vehicle. , 2012, , .		1
70	Control research for hybrid compound braking based on an uncertainty predictive model. , 2014, , .		1
71	Rule-based plug-in hybrid school bus energy management control strategy simulation. , 2015, , .		1
72	Model-based health condition monitoring method for multi-cell series-connected battery pack. , 2016, , .		1

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73	Lithium-Ion Battery Parameter Identification and State of Charge Estimation based on Equivalent Circuit Model. , 2020, , .		1
74	Design of Adaptive Backstepping Sliding Mode-Based Proton Exchange Membrane Fuel Cell Hydrogen Circulation Pump Controller. , 2020, , .		1
75	Online Active Set-Based Longitudinal and Lateral Model Predictive Tracking Control of Electric Autonomous Driving. Applied Sciences (Switzerland), 2021, 11, 9259.	2.5	1
76	A Novel Hierarchical Predictive Energy Management Strategy for Plug-in Hybrid Electric Bus Combined with Deep Reinforcement Learning. , 2021, , .		1
77	Stress-Constrained Fast Charging of Lithium-ion Battery with Predictive Control. , 2021, , .		1
78	A Real-time Predictive Energy Management Strategy for Power-split Plug-in Hybrid Electric Bus. , 2021, , .		1
79	Polymer separator to minimize crossover in microfluidic direct methanol fuel cells. , 2014, , .		0
80	Motor fault tolerant control strategy for distributed driving electric vehicle. , 2014, , .		0
81	Hierarchical control research for composite braking system of an electric vehicle. , 2014, , .		0
82	Modeling, Control, and Optimization Technologies in Electric Drive Vehicles. Scientific World Journal, The, 2015, 2015, 1-2.	2.1	0
83	Adaptive Output Voltage Tracking Control for a Fuel Cell-Boost Converter Power Supply. , 2019, , .		0
84	Improved internal short circuit detection method for Lithium-Ion battery with self-diagnosis characteristic. , 2020, , .		0
85	Adaptive MPC Based Real-Time Energy Management Strategy of the Electric Sanitation Vehicles. Applied Sciences (Switzerland), 2021, 11, 498.	2.5	0
86	Moving Horizon Estimation based Unknown Input Observer for Lithium-Ion Batteries. , 2021, , .		0
87	Practical State of Health Estimation of Lithium-ion Battery with High Robustness to Charging Partialness. , 2021, , .		0
88	Powertrain parameters optimization for a series-parallel plug-in hybrid electric bus by using a combinatorial optimization algorithm. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, , 1-1.	5.4	0
89	An Energy Management Strategy for Fuel Cell to Grid based on Evolutionary Game. , 2020, , .		0
90	Unbiased Model Identification and State of Energy Estimation of Lithium-Ion Battery. , 2020, , .		0

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91	T-S Fuzzy Fault Analysis for Fuel Cell Electric Vehicle Power Source System. , 2020, , .		0
92	Hierarchically distributed energy management for a smart energy multi-community system with multi-dimensional energy characteristics based on CP. , 2021, , .		0