

# Zheng Chen

## List of Publications by Year in descending order

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129  
papers

5,681  
citations

66343

42  
h-index

82547

72  
g-index

129  
all docs

129  
docs citations

129  
times ranked

3329  
citing authors

#	ARTICLE	IF	CITATIONS
1	A data-driven multi-scale extended Kalman filtering based parameter and state estimation approach of lithium-ion polymer battery in electric vehicles. <i>Applied Energy</i> , 2014, 113, 463-476.	10.1	437
2	State of Charge Estimation of Lithium-Ion Batteries in Electric Drive Vehicles Using Extended Kalman Filtering. <i>IEEE Transactions on Vehicular Technology</i> , 2013, 62, 1020-1030.	6.3	333
3	Energy Management for a Power-Split Plug-in Hybrid Electric Vehicle Based on Dynamic Programming and Neural Networks. <i>IEEE Transactions on Vehicular Technology</i> , 2014, 63, 1567-1580.	6.3	274
4	The State of Charge Estimation of Lithium-Ion Batteries Based on a Proportional-Integral Observer. <i>IEEE Transactions on Vehicular Technology</i> , 2014, 63, 1614-1621.	6.3	249
5	Online battery state of health estimation based on Genetic Algorithm for electric and hybrid vehicle applications. <i>Journal of Power Sources</i> , 2013, 240, 184-192.	7.8	237
6	Energy management of a power-split plug-in hybrid electric vehicle based on genetic algorithm and quadratic programming. <i>Journal of Power Sources</i> , 2014, 248, 416-426.	7.8	203
7	Driving-behavior-aware stochastic model predictive control for plug-in hybrid electric buses. <i>Applied Energy</i> , 2016, 162, 868-879.	10.1	201
8	Wireless Power Transfer by Electric Field Resonance and Its Application in Dynamic Charging. <i>IEEE Transactions on Industrial Electronics</i> , 2016, 63, 6602-6612.	7.9	184
9	Research on a multi-objective hierarchical prediction energy management strategy for range extended fuel cell vehicles. <i>Journal of Power Sources</i> , 2019, 429, 55-66.	7.8	153
10	A Novel Lane Change Decision-Making Model of Autonomous Vehicle Based on Support Vector Machine. <i>IEEE Access</i> , 2019, 7, 26543-26550.	4.2	120
11	A novel energy management method for series plug-in hybrid electric vehicles. <i>Applied Energy</i> , 2015, 145, 172-179.	10.1	107
12	Energy management of power-split plug-in hybrid electric vehicles based on simulated annealing and Pontryagin's minimum principle. <i>Journal of Power Sources</i> , 2014, 272, 160-168.	7.8	99
13	State of Health Estimation for Lithium-Ion Batteries Based on Healthy Features and Long Short-Term Memory. <i>IEEE Access</i> , 2020, 8, 28533-28547.	4.2	89
14	State of health estimation for lithium-ion batteries based on temperature prediction and gated recurrent unit neural network. <i>Journal of Power Sources</i> , 2022, 521, 230892.	7.8	85
15	An adaptive equivalent consumption minimization strategy for plug-in hybrid electric vehicles based on traffic information. <i>Energy</i> , 2020, 190, 116409.	8.8	80
16	An adaptive fusion estimation algorithm for state of charge of lithium-ion batteries considering wide operating temperature and degradation. <i>Journal of Power Sources</i> , 2020, 462, 228132.	7.8	79
17	State of Health Estimation for Lithium-ion Batteries Based on Fusion of Autoregressive Moving Average Model and Elman Neural Network. <i>IEEE Access</i> , 2019, 7, 102662-102678.	4.2	78
18	State of health prediction of lithium-ion batteries based on machine learning: Advances and perspectives. <i>IScience</i> , 2021, 24, 103265.	4.1	78

#	ARTICLE	IF	CITATIONS
19	A Flexible State-of-Health Prediction Scheme for Lithium-Ion Battery Packs With Long Short-Term Memory Network and Transfer Learning. <i>IEEE Transactions on Transportation Electrification</i> , 2021, 7, 2238-2248.	7.8	76
20	An online state of charge estimation method with reduced prior battery testing information. <i>International Journal of Electrical Power and Energy Systems</i> , 2014, 63, 178-184.	5.5	73
21	Evaluation of Model Based State of Charge Estimation Methods for Lithium-Ion Batteries. <i>Energies</i> , 2014, 7, 5065-5082.	3.1	71
22	Online diagnosis of state of health for lithium-ion batteries based on short-term charging profiles. <i>Journal of Power Sources</i> , 2020, 471, 228478.	7.8	71
23	Stochastic model predictive control for energy management of power-split plug-in hybrid electric vehicles based on reinforcement learning. <i>Energy</i> , 2020, 211, 118931.	8.8	68
24	Loss-Minimization-Based Charging Strategy for Lithium-Ion Battery. <i>IEEE Transactions on Industry Applications</i> , 2015, 51, 4121-4129.	4.9	67
25	A uniform estimation framework for state of health of lithium-ion batteries considering feature extraction and parameters optimization. <i>Energy</i> , 2020, 204, 117957.	8.8	65
26	Comparisons of Modeling and State of Charge Estimation for Lithium-Ion Battery Based on Fractional Order and Integral Order Methods. <i>Energies</i> , 2016, 9, 184.	3.1	64
27	Online State of Health Estimation for Lithium-Ion Batteries Based on Support Vector Machine. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 925.	2.5	62
28	A Hierarchical Energy Management Strategy for Power-Split Plug-in Hybrid Electric Vehicles Considering Velocity Prediction. <i>IEEE Access</i> , 2018, 6, 33261-33274.	4.2	60
29	Fault diagnosis and abnormality detection of lithium-ion battery packs based on statistical distribution. <i>Journal of Power Sources</i> , 2021, 482, 228964.	7.8	59
30	Multimode Energy Management for Plug-In Hybrid Electric Buses Based on Driving Cycles Prediction. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2016, 17, 2811-2821.	8.0	58
31	A robust H <sub>∞</sub> control-based hierarchical mode transition control system for plug-in hybrid electric vehicle. <i>Mechanical Systems and Signal Processing</i> , 2018, 99, 326-344.	8.0	58
32	Rule learning based energy management strategy of fuel cell hybrid vehicles considering multi-objective optimization. <i>Energy</i> , 2020, 207, 118212.	8.8	57
33	An adaptive multi-state estimation algorithm for lithium-ion batteries incorporating temperature compensation. <i>Energy</i> , 2020, 207, 118262.	8.8	56
34	Stage of Charge Estimation of Lithium-Ion Battery Packs Based on Improved Cubature Kalman Filter With Long Short-Term Memory Model. <i>IEEE Transactions on Transportation Electrification</i> , 2021, 7, 1271-1284.	7.8	54
35	Synthetic state of charge estimation for lithium-ion batteries based on long short-term memory network modeling and adaptive H-Infinity filter. <i>Energy</i> , 2021, 228, 120630.	8.8	54
36	A predictive energy management strategy for multi-mode plug-in hybrid electric vehicles based on multi neural networks. <i>Energy</i> , 2020, 208, 118366.	8.8	50

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37	A neural network-based ECMS for optimized energy management of plug-in hybrid electric vehicles. <i>Energy</i> , 2022, 243, 122727.	8.8	50
38	State of charge prediction framework for lithium-ion batteries incorporating long short-term memory network and transfer learning. <i>Journal of Energy Storage</i> , 2021, 37, 102494.	8.1	49
39	An On-Board Remaining Useful Life Estimation Algorithm for Lithium-Ion Batteries of Electric Vehicles. <i>Energies</i> , 2017, 10, 691.	3.1	48
40	Application-Oriented Stochastic Energy Management for Plug-in Hybrid Electric Bus With AMT. <i>IEEE Transactions on Vehicular Technology</i> , 2016, 65, 4459-4470.	6.3	47
41	SOC Based Battery Cell Balancing with a Novel Topology and Reduced Component Count. <i>Energies</i> , 2013, 6, 2726-2740.	3.1	46
42	Analysis and Design of a New Soft-Switching Boost Converter With a Coupled Inductor. <i>IEEE Transactions on Power Electronics</i> , 2014, 29, 4270-4277.	7.9	46
43	Energy Management for a Power-Split Plug-In Hybrid Electric Vehicle Based on Reinforcement Learning. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2494.	2.5	44
44	Research on Equivalent Factor Boundary of Equivalent Consumption Minimization Strategy for PHEVs. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 6011-6024.	6.3	42
45	Energy management strategy for power-split plug-in hybrid electric vehicle based on MPC and double Q-learning. <i>Energy</i> , 2022, 245, 123182.	8.8	41
46	A real-time blended energy management strategy of plug-in hybrid electric vehicles considering driving conditions. <i>Journal of Cleaner Production</i> , 2020, 252, 119735.	9.3	40
47	A survey on key techniques and development perspectives of equivalent consumption minimisation strategy for hybrid electric vehicles. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 151, 111607.	16.4	39
48	Online energy management strategy of fuel cell hybrid electric vehicles based on rule learning. <i>Journal of Cleaner Production</i> , 2020, 260, 121017.	9.3	38
49	Data-driven based eco-driving control for plug-in hybrid electric vehicles. <i>Journal of Power Sources</i> , 2021, 498, 229916.	7.8	36
50	A Novel State of Charge Estimation Algorithm for Lithium-Ion Battery Packs of Electric Vehicles. <i>Energies</i> , 2016, 9, 710.	3.1	34
51	Prediction of vehicle driving conditions with incorporation of stochastic forecasting and machine learning and a case study in energy management of plug-in hybrid electric vehicles. <i>Mechanical Systems and Signal Processing</i> , 2021, 158, 107765.	8.0	33
52	Dynamic Lane-Changing Trajectory Planning for Autonomous Vehicles Based on Discrete Global Trajectory. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 8513-8527.	8.0	32
53	Comparisons of Energy Management Methods for a Parallel Plug-In Hybrid Electric Vehicle between the Convex Optimization and Dynamic Programming. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 218.	2.5	31
54	Optimal charging strategy design for lithium-ion batteries considering minimization of temperature rise and energy loss. <i>International Journal of Energy Research</i> , 2019, 43, 4344-4358.	4.5	31

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55	Energy management for plug-in hybrid electric vehicles considering optimal engine ON/OFF control and fast state-of-charge trajectory planning. Energy, 2018, 163, 457-474.	8.8	30
56	Temporal-Difference Learning-Based Stochastic Energy Management for Plug-in Hybrid Electric Buses. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 2378-2388.	8.0	29
57	Cooperative optimization of velocity planning and energy management for connected plug-in hybrid electric vehicles. Applied Mathematical Modelling, 2021, 95, 715-733.	4.2	28
58	Research on Classification and Recognition of Driving Styles Based on Feature Engineering. IEEE Access, 2019, 7, 89245-89255.	4.2	26
59	<scp>State</scp> of charge estimation framework for lithium-ion batteries based on square root cubature Kalman filter under wide operation temperature range. International Journal of Energy Research, 2021, 45, 5586-5601.	4.5	26
60	Remaining Useful Life Prediction for Lithium-Ion Batteries Based on Capacity Estimation and Box-Cox Transformation. IEEE Transactions on Vehicular Technology, 2020, 69, 14765-14779.	6.3	26
61	A Comparison Study of the Model Based SOC Estimation Methods for Lithium-Ion Batteries. , 2013, , .		24
62	External short circuit fault diagnosis for lithium-ion batteries. , 2014, , .		23
63	Driving Intention Identification Based on Long Short-Term Memory and A Case Study in Shifting Strategy Optimization. IEEE Access, 2019, 7, 128593-128605.	4.2	22
64	Cooperative control strategy for plug-in hybrid electric vehicles based on a hierarchical framework with fast calculation. Journal of Cleaner Production, 2020, 251, 119627.	9.3	22
65	A novel optimal power management strategy for plug-in hybrid electric vehicle with improved adaptability to traffic conditions. Journal of Power Sources, 2021, 489, 229512.	7.8	21
66	Co-optimization of speed planning and energy management for intelligent fuel cell hybrid vehicle considering complex traffic conditions. Energy, 2022, 247, 123476.	8.8	21
67	An adaptive online energy management controller for power-split HEV based on Dynamic Programming and fuzzy logic. , 2009, , .		19
68	An Adaptive Equivalent Consumption Minimization Strategy for Plug-In Hybrid Electric Vehicles Based on Energy Balance Principle. IEEE Access, 2019, 7, 67589-67601.	4.2	19
69	Alternative combined co-estimation of state of charge and capacity for lithium-ion batteries in wide temperature scope. Energy, 2022, 244, 123236.	8.8	19
70	Capacity Prediction and Validation of Lithium-Ion Batteries Based on Long Short-Term Memory Recurrent Neural Network. IEEE Access, 2020, 8, 172783-172798.	4.2	18
71	On-board state of health estimation for lithium-ion batteries based on random forest. , 2018, , .		17
72	An optimal control strategy design for plug-in hybrid electric vehicles based on internet of vehicles. Energy, 2021, 228, 120631.	8.8	17

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73	A Novel Learning-Based Model Predictive Control Strategy for Plug-In Hybrid Electric Vehicle. IEEE Transactions on Transportation Electrification, 2022, 8, 23-35.	7.8	17
74	Multiple cell lithium-ion battery system electric fault online diagnostics. , 2015, , .		16
75	Operation Efficiency Optimization for Permanent Magnet Synchronous Motor Based on Improved Particle Swarm Optimization. IEEE Access, 2021, 9, 777-788.	4.2	15
76	An optimal charging algorithm to minimise solid electrolyte interface layer in lithium-ion battery. Journal of Power Sources, 2021, 482, 228895.	7.8	14
77	Multi-objective parameter optimization for a single-shaft series-parallel plug-in hybrid electric bus using genetic algorithm. Science China Technological Sciences, 2016, 59, 1176-1185.	4.0	13
78	Trip-Oriented Model Predictive Energy Management Strategy for Plug-in Hybrid Electric Vehicles. IEEE Access, 2019, 7, 113771-113785.	4.2	13
79	Slide Mode and Fuzzy Logic Based Powertrain Controller for the Energy Management and Battery Lifetime Extension of Series Hybrid Electric Vehicles. Journal of Asian Electric Vehicles, 2010, 8, 1425-1432.	0.4	11
80	LiFePO4 battery charging strategy design considering temperature rise minimization. Journal of Renewable and Sustainable Energy, 2017, 9, .	2.0	11
81	Driving behavior oriented torque demand regulation for electric vehicles with single pedal driving. Energy, 2021, 228, 120568.	8.8	11
82	Coordinated control strategy for braking and shifting for electric vehicle with two-speed automatic transmission. ETransportation, 2022, 13, 100188.	14.8	11
83	Battery Pack Grouping and Capacity Improvement for Electric Vehicles Based on a Genetic Algorithm. Energies, 2017, 10, 439.	3.1	10
84	An Optimized Rule Based Energy Management Strategy for a Fuel Cell/Battery Vehicle. , 2017, , .		10
85	Optimal launching-intention-aware control strategy for automated clutch engagement. International Journal of Automotive Technology, 2017, 18, 417-428.	1.4	9
86	A novel data-driven controller for plug-in hybrid electric vehicles with improved adaptabilities to driving environment. Journal of Cleaner Production, 2022, 334, 130250.	9.3	9
87	Study on braking energy recovery efficiency of electric vehicles equipped with super capacitor. , 2017, , .		8
88	Multi-Objective Motion Control Optimization for the Bridge Crane System. Applied Sciences (Switzerland), 2018, 8, 473.	2.5	8
89	A Vehicle-Environment Cooperative Control Based Velocity Profile Prediction Method and Case Study in Energy Management of Plug-in Hybrid Electric Vehicles. IEEE Access, 2019, 7, 75965-75975.	4.2	8
90	A novel strategy for power sources management in connected plug-in hybrid electric vehicles based on mobile edge computation framework. Journal of Power Sources, 2020, 477, 228650.	7.8	8

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91	Machine Learning-Based Vehicle Model Construction and Validation Toward Optimal Control Strategy Development for Plug-In Hybrid Electric Vehicles. IEEE Transactions on Transportation Electrification, 2022, 8, 1590-1603.	7.8	8
92	Loss minimization-based charging strategy for lithium-ion battery. , 2014, , .		7
93	State of Health Estimation of Lithium-Ion Batteries Based on Fixed Size LS-SVM. , 2018, , .		7
94	Model-Based Adaptive Joint Estimation of the State of Charge and Capacity for Lithium-Ion Batteries in Their Entire Lifespan. Energies, 2020, 13, 1410.	3.1	7
95	Reinforcement-Learning-Based Decision and Control for Autonomous Vehicle at Two-Way Single-Lane Unsignalized Intersection. Electronics (Switzerland), 2022, 11, 1203.	3.1	7
96	A novel state-of-charge estimation method for lithium-ion battery pack of electric vehicles. , 2015, , .		6
97	Charging strategy design of lithium-ion batteries for energy loss minimization based on minimum principle. , 2017, , .		6
98	Cooperative charging management for electric vehicles via mobile edge computation. Journal of Power Sources, 2020, 474, 228533.	7.8	6
99	Design of an Improved Implicit Generalized Predictive Controller for Temperature Control Systems. IEEE Access, 2020, 8, 13924-13936.	4.2	6
100	Design, Control, and Validation of Two-Speed Clutchless Automatic Transmission for Electric Vehicle. IEEE/ASME Transactions on Mechatronics, 2022, 27, 1299-1310.	5.8	6
101	Integrated Velocity Prediction Method and Application in Vehicle-Environment Cooperative Control Based on Internet of Vehicles. IEEE Transactions on Vehicular Technology, 2022, 71, 2639-2654.	6.3	6
102	Validation of Vehicle Driving Simulator from Perspective of Velocity and Trajectory Based Driving Behavior under Curve Conditions. Energies, 2021, 14, 8429.	3.1	6
103	A bidirectional power converter for battery of plug-in hybrid electric vehicles. , 2010, , .		5
104	A learning method for energy optimization of the plug-in hybrid electric bus. Science China Technological Sciences, 2015, 58, 1242-1249.	4.0	4
105	Anti-swing design for overhead crane based on dual sliding mode control. , 2018, , .		4
106	Driving Intention Identification Based on Long Short-Term Memory Neural Network. , 2019, , .		4
107	State of Health Estimation for Lithium-Ion Battery Based on Long Short Term Memory Networks. DEStech Transactions on Environment Energy and Earth Science, 2019, , .	0.0	4
108	An Optimal Control Strategy for Plug-In Hybrid Electric Vehicles Based on Enhanced Model Predictive Control With Efficient Numerical Method. IEEE Transactions on Transportation Electrification, 2022, 8, 2516-2530.	7.8	4

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109	Simplification of full homogenized macro-scale model for lithium-ion batteries. Journal of Energy Storage, 2022, 46, 103801.	8.1	4
110	Protocol for state-of-health prediction of lithium-ion batteries based on machine learning. STAR Protocols, 2022, 3, 101272.	1.2	4
111	Power management of passive multi-source hybrid electric vehicle. , 2011, , .		3
112	Influence of typical drivers' unsafe driving behaviors to traffic operation: An exploratory study in Kunming, China. Advances in Mechanical Engineering, 2017, 9, 168781401772864.	1.6	3
113	Energy management for plug-in hybrid electric vehicles based on quadratic programming with optimized engine on-off sequence. , 2017, , .		3
114	State of Charge Estimation for Lithium-Ion Battery Based on Hybrid Compensation Modeling and Adaptive H-Infinity Filter. IEEE Transactions on Transportation Electrification, 2023, 9, 945-957.	7.8	3
115	A novel bidirectional battery energy controller for Plug-in Hybrid Electric Vehicle. , 2011, , .		2
116	Research on intelligent launching control of dual clutch transmissions based on adaptive neural fuzzy inference system. Journal of Mechanical Science and Technology, 2022, 36, 3227-3237.	1.5	2
117	A Novel Accuracy and Similarity Search Structure Based on Parallel Bloom Filters. Computational Intelligence and Neuroscience, 2016, 2016, 1-12.	1.7	1
118	Modeling and analysis of grid-connected large-scale photovoltaic plants considering the delay effects. , 2016, , .		1
119	A Novel Adaptive Control of PMSM for Electric Vehicle. , 2017, , .		1
120	A Novel Velocity Forecast Method for Improving Predictive Energy Management of Plug-In Hybrid Electric Vehicles. , 2017, , .		1
121	A novel anti-swing system design using MPC controller with guaranteed constraints. , 2017, , .		1
122	An optimal charging algorithm for lithium-ion batteries considering temperature rise minimization. , 2017, , .		1
123	Rule-Based Online Energy Management Strategy for Power-Split Plug-In Hybrid Electric Vehicles. , 2018, , .		1
124	An Improved State of Charge Estimation Method for Lithium-Ion Battery Used in a Wide Ambient Temperature Range. , 2019, , .		1
125	Optimal Eco-driving Control for Plug-in Hybrid Electric Vehicles Based on Neural Network. , 2020, , .		1
126	The research of radar target tracking observed information linear filter method. AIP Conference Proceedings, 2018, , .	0.4	0



#	ARTICLE	IF	CITATIONS
127	Robust Cascaded Nonlinear Generalized Predictive Control with Sliding Mode Disturbance Observer for Permanent Magnet Synchronous Hub Motor. , 2020, , .		0
128	Reinforcement Energy Management Strategy for a Plug-in Hybrid Electric Vehicle Considering State-of-Charge Constraint. , 2020, , .		0
129	Optimal Energy Management for a Dual-motor All-wheel Drive Electric Vehicle Considering Battery Temperature. , 2021, , .		0