

Weixiang Shen

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141
papers

3,848
citations

36
h-index

58
g-index

173
ext. papers

5,392
ext. citations

6.9
avg, IF

6.38
L-index

#	Paper	IF	Citations
141	A Lithium-Ion Battery-in-the-Loop Approach to Test and Validate Multiscale Dual H Infinity Filters for State-of-Charge and Capacity Estimation. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 332-342	7.2	143
140	The available capacity computation model based on artificial neural network for lead-acid batteries in electric vehicles. <i>Journal of Power Sources</i> , 2000 , 87, 201-204	8.9	142
139	A novel approach for state of charge estimation based on adaptive switching gain sliding mode observer in electric vehicles. <i>Journal of Power Sources</i> , 2014 , 246, 667-678	8.9	136
138	Single-Phase Uninterruptible Power Supply Based on Z-Source Inverter. <i>IEEE Transactions on Industrial Electronics</i> , 2008 , 55, 2997-3004	8.9	131
137	A novel multi-model probability battery state of charge estimation approach for electric vehicles using H-infinity algorithm. <i>Applied Energy</i> , 2016 , 166, 76-83	10.7	130
136	Lithium-Ion Battery Pack State of Charge and State of Energy Estimation Algorithms Using a Hardware-in-the-Loop Validation. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 4421-4431	7.2	129
135	Lithium-Ion Battery Parameters and State-of-Charge Joint Estimation Based on H-Infinity and Unscented Kalman Filters. <i>IEEE Transactions on Vehicular Technology</i> , 2017 , 66, 8693-8701	6.8	128
134	Optimally sizing of solar array and battery in a standalone photovoltaic system in Malaysia. <i>Renewable Energy</i> , 2009 , 34, 348-352	8.1	122
133	Sliding Mode Control for Steer-by-Wire Systems With AC Motors in Road Vehicles. <i>IEEE Transactions on Industrial Electronics</i> , 2014 , 61, 1596-1611	8.9	120
132	Review of mechanical design and strategic placement technique of a robust battery pack for electric vehicles. <i>Renewable and Sustainable Energy Reviews</i> , 2016 , 60, 1319-1331	16.2	115
131	A Novel Fractional Order Model for State of Charge Estimation in Lithium Ion Batteries. <i>IEEE Transactions on Vehicular Technology</i> , 2019 , 68, 4130-4139	6.8	101
130	. <i>IEEE Transactions on Vehicular Technology</i> , 2016 , 65, 1936-1947	6.8	98
129	Lithium-ion battery aging mechanisms and diagnosis method for automotive applications: Recent advances and perspectives. <i>Renewable and Sustainable Energy Reviews</i> , 2020 , 131, 110048	16.2	97
128	New charging strategy for lithium-ion batteries based on the integration of Taguchi method and state of charge estimation. <i>Journal of Power Sources</i> , 2015 , 273, 413-422	8.9	87
127	A new battery available capacity indicator for electric vehicles using neural network. <i>Energy Conversion and Management</i> , 2002 , 43, 817-826	10.6	87
126	State-of-charge estimation of lithium-ion battery using an improved neural network model and extended Kalman filter. <i>Journal of Cleaner Production</i> , 2019 , 234, 1153-1164	10.3	84
125	A Sensor Fault Diagnosis Method for a Lithium-Ion Battery Pack in Electric Vehicles. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 9709-9718	7.2	84

124	Smoothing wind power fluctuations by fuzzy logic pitch angle controller. <i>Renewable Energy</i> , 2012 , 38, 224-233	8.1	83
123	Adaptive neuro-fuzzy modeling of battery residual capacity for electric vehicles. <i>IEEE Transactions on Industrial Electronics</i> , 2002 , 49, 677-684	8.9	72
122	Online Fault Diagnosis of External Short Circuit for Lithium-Ion Battery Pack. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 1081-1091	8.9	67
121	State of available capacity estimation for lead-acid batteries in electric vehicles using neural network. <i>Energy Conversion and Management</i> , 2007 , 48, 433-442	10.6	58
120	An Improved Virtual Space Vector Modulation Scheme for Three-Level Active Neutral-Point-Clamped Inverter. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 7419-7434	7.2	57
119	An improved theoretical electrochemical-thermal modelling of lithium-ion battery packs in electric vehicles. <i>Journal of Power Sources</i> , 2015 , 284, 328-338	8.9	55
118	State-of-Health Estimation Based on Differential Temperature for Lithium Ion Batteries. <i>IEEE Transactions on Power Electronics</i> , 2020 , 35, 10363-10373	7.2	55
117	. <i>IEEE Transactions on Industrial Informatics</i> , 2014 , 10, 2003-2015	11.9	54
116	Towards a smarter battery management system: A critical review on optimal charging methods of lithium ion batteries. <i>Energy</i> , 2019 , 183, 220-234	7.9	52
115	Neural network-based residual capacity indicator for nickel-metal hydride batteries in electric vehicles. <i>IEEE Transactions on Vehicular Technology</i> , 2005 , 54, 1705-1712	6.8	51
114	. <i>IEEE Transactions on Energy Conversion</i> , 2017 , 32, 707-719	5.4	49
113	Adaptive gain sliding mode observer for state of charge estimation based on combined battery equivalent circuit model. <i>Computers and Chemical Engineering</i> , 2014 , 64, 114-123	4	47
112	A review on state of health estimation for lithium ion batteries in photovoltaic systems. <i>ETransportation</i> , 2019 , 2, 100028	12.7	46
111	Efficiency analysis of a bidirectional DC/DC converter in a hybrid energy storage system for plug-in hybrid electric vehicles. <i>Applied Energy</i> , 2016 , 183, 612-622	10.7	42
110	An overview of lithium-ion batteries for electric vehicles 2012 ,		41
109	A novel approach to reconstruct open circuit voltage for state of charge estimation of lithium ion batteries in electric vehicles. <i>Applied Energy</i> , 2019 , 255, 113758	10.7	40
108	A novel aggregated DFIG wind farm model using mechanical torque compensating factor. <i>Energy Conversion and Management</i> , 2013 , 67, 265-274	10.6	40
107	Electrode ageing estimation and open circuit voltage reconstruction for lithium ion batteries. <i>Energy Storage Materials</i> , 2021 , 37, 283-295	19.4	40

106	State-of-charge estimation of LiFePO ₄ batteries in electric vehicles: A deep-learning enabled approach. <i>Applied Energy</i> , 2021 , 291, 116812	10.7	39
105	Extreme Learning Machine-Based Thermal Model for Lithium-Ion Batteries of Electric Vehicles under External Short Circuit. <i>Engineering</i> , 2021 , 7, 395-405	9.7	34
104	Transient stability of power system integrated with doubly fed induction generator wind farms. <i>IET Renewable Power Generation</i> , 2015 , 9, 184-194	2.9	33
103	Estimation of battery available capacity under variable discharge currents. <i>Journal of Power Sources</i> , 2002 , 103, 180-187	8.9	31
102	Optimally sizing of battery energy storage capacity by operational optimization of residential PV-Battery systems: An Australian household case study. <i>Renewable Energy</i> , 2020 , 160, 852-864	8.1	31
101	Robust active disturbance rejection controller design to improve low-voltage ride-through capability of doubly fed induction generator wind farms. <i>IET Renewable Power Generation</i> , 2015 , 9, 961-969	2.9	26
100	Neutral-point potential balancing control strategy of three-level active NPC inverter based on SHEPWM. <i>IET Power Electronics</i> , 2017 , 10, 1943-1950	2.2	25
99	Deep neural network battery charging curve prediction using 30 points collected in 10 min. <i>Joule</i> , 2021 , 5, 1521-1534	27.8	25
98	A novel thermal management system for improving discharge/charge performance of Li-ion battery packs under abuse. <i>Journal of Power Sources</i> , 2018 , 378, 759-775	8.9	24
97	A new battery capacity indicator for nickel-metal hydride battery powered electric vehicles using adaptive neuro-fuzzy inference system. <i>Energy Conversion and Management</i> , 2003 , 44, 2059-2071	10.6	24
96	Novel active LiFePO ₄ battery balancing method based on chargeable and dischargeable capacity. <i>Computers and Chemical Engineering</i> , 2017 , 97, 27-35	4	23
95	Neural network based computational model for estimation of heat generation in LiFePO ₄ pouch cells of different nominal capacities. <i>Computers and Chemical Engineering</i> , 2017 , 101, 81-94	4	22
94	A novel approach of maximizing energy harvesting in photovoltaic systems based on bisection search theorem 2010 ,		22
93	Comparison of decomposition levels for wavelet transform based energy management in a plug-in hybrid electric vehicle. <i>Journal of Cleaner Production</i> , 2019 , 210, 1085-1097	10.3	22
92	Online simultaneous identification of parameters and order of a fractional order battery model. <i>Journal of Cleaner Production</i> , 2020 , 247, 119147	10.3	21
91	Comparative study on fault responses of synchronous generators and wind turbine generators using transient stability index based on transient energy function. <i>International Journal of Electrical Power and Energy Systems</i> , 2013 , 51, 145-152	5.1	20
90	Robust nonlinear adaptive backstepping excitation controller design for rejecting external disturbances in multimachine power systems. <i>International Journal of Electrical Power and Energy Systems</i> , 2017 , 84, 76-86	5.1	19
89	Charging algorithms of lithium-ion batteries: An overview 2012 ,		19

88	Co-Estimation of State of Charge and Capacity for Lithium-ion Batteries with Multi-Stage Model Fusion Method. <i>Engineering</i> , 2021 ,	9.7	19
87	A distributed charging strategy based on day ahead price model for PV-powered electric vehicle charging station. <i>Applied Soft Computing Journal</i> , 2019 , 76, 638-648	7.5	18
86	Quantitative assessment and comparison of fault responses for synchronous generator and wind turbine generators based on modified transient energy function. <i>IET Renewable Power Generation</i> , 2014 , 8, 474-483	2.9	18
85	Impact of demand side management on optimal sizing of residential battery energy storage system. <i>Renewable Energy</i> , 2021 , 172, 1250-1266	8.1	18
84	Application of Robust Design Methodology to Battery Packs for Electric Vehicles: Identification of Critical Technical Requirements for Modular Architecture. <i>Batteries</i> , 2018 , 4, 30	5.7	17
83	Critical analysis of open circuit voltage and its effect on estimation of irreversible heat for Li-ion pouch cells. <i>Journal of Power Sources</i> , 2017 , 350, 117-126	8.9	16
82	Aging investigation of an echelon internal heating method on a three-electrode lithium ion cell at low temperatures. <i>Journal of Energy Storage</i> , 2019 , 25, 100878	7.8	15
81	Investigation of Internal Short Circuits of Lithium-Ion Batteries under Mechanical Abusive Conditions. <i>Energies</i> , 2019 , 12, 1885	3.1	14
80	Investigation of mechanical property of cylindrical lithium-ion batteries under dynamic loadings. <i>Journal of Power Sources</i> , 2020 , 451, 227749	8.9	14
79	Non-linear adaptive coordinated controller design for multimachine power systems to improve transient stability. <i>IET Generation, Transmission and Distribution</i> , 2016 , 10, 3353-3363	2.5	14
78	Nonlinear Adaptive Excitation Controller Design for Multimachine Power Systems With Unknown Stability Sensitive Parameters. <i>IEEE Transactions on Control Systems Technology</i> , 2017 , 25, 2060-2072	4.8	13
77	Frequency and time domain modelling and online state of charge monitoring for ultracapacitors. <i>Energy</i> , 2019 , 176, 874-887	7.9	13
76	A Fast Multi-Switched Inductor Balancing System Based on a Fuzzy Logic Controller for Lithium-Ion Battery Packs in Electric Vehicles. <i>Energies</i> , 2017 , 10, 1034	3.1	13
75	A Novel Active Online State of Charge Based Balancing Approach for Lithium-Ion Battery Packs during Fast Charging Process in Electric Vehicles. <i>Energies</i> , 2017 , 10, 1766	3.1	12
74	A Nine-Level Inverter for Low-Voltage Applications. <i>IEEE Transactions on Power Electronics</i> , 2020 , 35, 1659-1671	7.2	12
73	Improved constitutive model of the jellyroll for cylindrical lithium ion batteries considering microscopic damage. <i>Energy</i> , 2019 , 185, 202-212	7.9	11
72	Mathematical model of a solar module for energy yield simulation in photovoltaic systems 2009 ,		11
71	Review on sensors fault diagnosis and fault-tolerant techniques for lithium ion batteries in electric vehicles 2018 ,		9

70	Self-organising map based classification of LiFePO ₄ cells for battery pack in EVs. <i>International Journal of Vehicle Design</i> , 2015 , 69, 151	2.4	9
69	Study on the Control Strategy for Parallel Operation of Inverters Based on Adaptive Droop Method 2006 ,		9
68	A review on transient stability of DFIG integrated power system. <i>International Journal of Sustainable Engineering</i> , 2015 , 8, 405-416	3.1	8
67	Fast finite-time consensus of a class of high-order uncertain nonlinear systems 2010 ,		8
66	Design of Single Phase Grid-connected Photovoltaic Power Plant based on String Inverters 2006 ,		8
65	Fractional order battery modelling methodologies for electric vehicle applications: Recent advances and perspectives. <i>Science China Technological Sciences</i> , 2020 , 63, 2211-2230	3.5	8
64	Economical evaluation of large-scale photovoltaic systems using Universal Generating Function techniques. <i>Journal of Modern Power Systems and Clean Energy</i> , 2013 , 1, 167-176	4	7
63	An Adaptive Partial Feedback Linearizing Control Scheme: An Application to a Single Machine Infinite Bus System. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2020 , 67, 2557-2561	3.5	7
62	A New Rotor Position Measurement Method for Permanent Magnet Spherical Motors. <i>Applied Sciences (Switzerland)</i> , 2018 , 8, 2415	2.6	7
61	Hierarchical Optimization Method for Energy Scheduling of Multiple Microgrids. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 624	2.6	6
60	A new terminal sliding mode tracking control for a class of nonminimum phase systems with uncertain dynamics 2008 ,		6
59	Energy management strategy of connected hybrid electric vehicles considering electricity and oil price fluctuations: A case study of ten typical cities in China. <i>Journal of Energy Storage</i> , 2021 , 36, 102347	7.8	6
58	A Review of Equivalent Circuit Model Based Online State of Power Estimation for Lithium-Ion Batteries in Electric Vehicles. <i>Vehicles</i> , 2022 , 4, 1-31	1.5	6
57	Nonlinear excitation control of synchronous generators based on adaptive backstepping method 2015 ,		5
56	A nonlinear adaptive backstepping approach for coordinated excitation and steam-valving control of synchronous generators 2015 ,		5
55	A comparative study of observer design techniques for state of charge estimation in electric vehicles 2012 ,		5
54	A Comparative Study of Fractional Order Models on State of Charge Estimation for Lithium Ion Batteries. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2020 , 33,	2.5	5
53	Distributed Peer-to-Peer Electricity Trading Considering Network Loss in a Distribution System. <i>Energies</i> , 2019 , 12, 4318	3.1	5

52	Multiobjective Particle Swarm Optimization for Microgrids Pareto Optimization Dispatch. <i>Mathematical Problems in Engineering</i> , 2020 , 2020, 1-13	1.1	5
51	Deep neural network battery impedance spectra prediction by only using constant-current curve. <i>Energy Storage Materials</i> , 2021 , 41, 24-31	19.4	5
50	Stability enhancement of DFIG wind turbine using LQR pitch control over rated wind speed 2016 ,		4
49	Adaptive gain sliding mode observer for state of charge estimation based on combined battery equivalent circuit model in electric vehicles 2013 ,		4
48	Robust direct power control of grid-connected photovoltaic systems based on adaptive partial feedback linearization 2017 ,		4
47	Development of a mathematical model for solar module in photovoltaic systems 2011 ,		4
46	Development of a LabVIEW-based test facility for standalone PV systems 2006 ,		4
45	Electro-thermal coupling model of lithium-ion batteries under external short circuit. <i>Applied Energy</i> , 2021 , 293, 116910	10.7	4
44	Nonlinear adaptive excitation controller design for multimachine power systems 2015 ,		3
43	Robust adaptive backstepping controller design for DC-DC buck converters with external disturbances 2016 ,		3
42	Robust sliding mode observer using RBF neural network for lithium-ion battery state of charge estimation in electric vehicles 2014 ,		3
41	Robust sliding mode control for Steer-by-Wire systems with AC motors in road vehicles 2013 ,		3
40	Robust adaptive backstepping excitation controller design for simple power system models with external disturbances 2015 ,		3
39	Comparison of two battery equivalent circuit models for state of charge estimation in electric vehicles 2015 ,		3
38	The mathematical model of 18650 lithium-ion battery in electric vehicles 2013 ,		3
37	IEEE Access Special Section Editorial: Advanced Energy Storage Technologies and Their Applications. <i>IEEE Access</i> , 2020 , 8, 218685-218693	3.5	3
36	Sliding mode control of longitudinal motions for underground mining electric vehicles with parametric uncertainties. <i>International Journal of Modelling, Identification and Control</i> , 2016 , 26, 68	0.6	3
35	2019 ,		3

34	A data-model fusion method for online state of power estimation of lithium-ion batteries at high discharge rate in electric vehicles. <i>Energy</i> , 2022 , 124270	7.9	3
33	H infinity observer based state of charge estimation for battery packs in electric vehicles 2016 ,		2
32	Intelligent battery management for electric and hybrid electric vehicles: A survey 2016 ,		2
31	Dynamic validated model of a DFIG wind turbine. <i>International Journal of Renewable Energy Technology</i> , 2014 , 5, 372	0.1	2
30	State of charge estimation for battery packs using H-infinity observer in underground mine electric vehicles. <i>Australian Journal of Electrical and Electronics Engineering</i> , 2017 , 14, 49-58	0.6	2
29	Designing a Robust Battery Pack for Electric Vehicles Using a Modified Parameter Diagram 2015 ,		2
28	Experimental comparison of charging algorithms for a lithium-ion battery 2012 ,		2
27	Expected energy production evaluation for photovoltaic systems 2011 ,		2
26	Impact of electric vehicles and renewable energy systems on cost and emission of electricity 2012 ,		2
25	A study on standalone photovoltaic system with real meteorological data at Malaysia 2005 ,		2
24	Current sensor fault diagnosis method based on an improved equivalent circuit battery model. <i>Applied Energy</i> , 2022 , 310, 118588	10.7	2
23	Energy Market Management for Distribution Network with a Multi-Microgrid System: A Dynamic Game Approach. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 5436	2.6	2
22	On-board soft short circuit fault diagnosis of lithium-ion battery packs for electric vehicles using extended Kalman filter. <i>CSEE Journal of Power and Energy Systems</i> , 2020 ,	2.3	2
21	Model predictive control based real-time energy management for a hybrid energy storage system. <i>CSEE Journal of Power and Energy Systems</i> , 2020 ,	2.3	2
20	Enhanced Lithium-ion battery model considering critical surface charge behavior. <i>Applied Energy</i> , 2022 , 314, 118915	10.7	2
19	2019 ,		1
18	A novel efficient numerical method to simulate electrochemical process for a lithium ion battery. <i>Russian Journal of Electrochemistry</i> , 2016 , 52, 584-594	1.2	1
17	Development of Thermal-Electrochemical Model for Lithium Ion 18650 Battery Packs in Electric Vehicles 2013 ,		1

16	State of charge estimation based on improved Li-ion battery model using extended Kalman filter 2013,		1
15	Fuzzy logic controller for battery balancing system for lithium-iron phosphate battery pack 2017,		1
14	Investigation of critical parameters for stability analysis of wind generation systems with DFIGs 2014,		1
13	Investigation of standalone photovoltaic systems 2011,		1
12	Application of genetic algorithms in the design of a solar array-exclusive standalone photovoltaic system 2008,		1
11	Robust longitudinal motion control of underground mining electric vehicles based on fuzzy parameter tuning sliding mode controller. <i>Computers and Electrical Engineering</i> , 2022 , 98, 107683	4.3	1
10	A non-linear adaptive excitation control scheme for feedback linearized synchronous generations in multimachine power systems. <i>IET Generation, Transmission and Distribution</i> , 2021 , 15, 1501-1520	2.5	1
9	A joint grey relational analysis based state of health estimation for lithium ion batteries considering temperature effects. <i>Journal of Energy Storage</i> , 2021 , 42, 103102	7.8	1
8	DC-AC hybrid rapid heating method for lithium-ion batteries at high state of charge operated from low temperatures. <i>Energy</i> , 2022 , 238, 121809	7.9	1
7	A Soft Short-Circuit Diagnosis Method for Lithium-Ion Battery Packs in Electric Vehicles. <i>IEEE Transactions on Power Electronics</i> , 2022 , 37, 8572-8581	7.2	1
6	An enhanced multi-constraint state of power estimation algorithm for lithium-ion batteries in electric vehicles. <i>Journal of Energy Storage</i> , 2022 , 50, 104628	7.8	0
5	Advances in Rechargeable Lithium Ion Batteries and their Systems for Electric and Hybrid Electric Vehicles 2020 , 99-126		
4	Estimation of Residual Available Capacity for Lead Acid Batteries in Electric Vehicles. <i>Journal of Asian Electric Vehicles</i> , 2006 , 4, 861-867	0.3	
3	Battery Balancing 2018 , 183-229		
2	Battery State of Charge and State of Energy Estimation 2018 , 67-93		
1	Battery Charging 2018 , 155-182		