Weixiang Shen

List of Publications by Year in Descending Order

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	Current sensor fault diagnosis method based on an improved equivalent circuit battery model. *Applied Energy*, **2022**, 310, 118588	10.7	2
140	Robust longitudinal motion control of underground mining electric vehicles based on fuzzy parameter tuning sliding mode controller. *Computers and Electrical Engineering*, **2022**, 98, 107683	4.3	1
139	DC-AC hybrid rapid heating method for lithium-ion batteries at high state of charge operated from low temperatures. *Energy*, **2022**, 238, 121809	7.9	1
138	Enhanced Lithium-ion battery model considering critical surface charge behavior. *Applied Energy*, **2022**, 314, 118915	10.7	2
137	A Soft Short-Circuit Diagnosis Method for Lithium-Ion Battery Packs in Electric Vehicles. *IEEE Transactions on Power Electronics*, **2022**, 37, 8572-8581	7.2	1
136	A Review of Equivalent Circuit Model Based Online State of Power Estimation for Lithium-Ion Batteries in Electric Vehicles. *Vehicles*, **2022**, 4, 1-31	1.5	6
135	An enhanced multi-constraint state of power estimation algorithm for lithium-ion batteries in electric vehicles. *Journal of Energy Storage*, **2022**, 50, 104628	7.8	0
134	A data-model fusion method for online state of power estimation of lithium-ion batteries at high discharge rate in electric vehicles. *Energy*, **2022**, 124270	7.9	3
133	Energy management strategy of connected hybrid electric vehicles considering electricity and oil price fluctuations: A case study of ten typical cities in China. *Journal of Energy Storage*, **2021**, 36, 102347	7.8	6
132	Electrode ageing estimation and open circuit voltage reconstruction for lithium ion batteries. *Energy Storage Materials*, **2021**, 37, 283-295	19.4	40
131	State-of-charge estimation of LiFePO4 batteries in electric vehicles: A deep-learning enabled approach. *Applied Energy*, **2021**, 291, 116812	10.7	39
130	Deep neural network battery charging curve prediction using 30 points collected in 10 min. *Joule*, **2021**, 5, 1521-1534	27.8	25
129	Impact of demand side management on optimal sizing of residential battery energy storage system. *Renewable Energy*, **2021**, 172, 1250-1266	8.1	18
128	Extreme Learning Machine-Based Thermal Model for Lithium-Ion Batteries of Electric Vehicles under External Short Circuit. *Engineering*, **2021**, 7, 395-405	9.7	34
127	A non-linear adaptive excitation control scheme for feedback linearized synchronous generations in multimachine power systems. *IET Generation, Transmission and Distribution*, **2021**, 15, 1501-1520	2.5	1
126	Co-Estimation of State of Charge and Capacity for Lithium-ion Batteries with Multi-Stage Model Fusion Method. *Engineering*, **2021**,	9.7	19
125	Electro-thermal coupling model of lithium-ion batteries under external short circuit. *Applied Energy*, **2021**, 293, 116910	10.7	4

124	A joint grey relational analysis based state of health estimation for lithium ion batteries considering temperature effects. *Journal of Energy Storage*, **2021**, 42, 103102	7.8	1
123	Deep neural network battery impedance spectra prediction by only using constant-current curve. *Energy Storage Materials*, **2021**, 41, 24-31	19.4	5
122	State-of-Health Estimation Based on Differential Temperature for Lithium Ion Batteries. *IEEE Transactions on Power Electronics*, **2020**, 35, 10363-10373	7.2	55
121	Investigation of mechanical property of cylindrical lithium-ion batteries under dynamic loadings. *Journal of Power Sources*, **2020**, 451, 227749	8.9	14
120	A Comparative Study of Fractional Order Models on State of Charge Estimation for Lithium Ion Batteries. *Chinese Journal of Mechanical Engineering (English Edition)*, **2020**, 33,	2.5	5
119	Advances in Rechargeable Lithium Ion Batteries and their Systems for Electric and Hybrid Electric Vehicles **2020**, 99-126		
118	On-board soft short circuit fault diagnosis of lithium-ion battery packs for electric vehicles using extended Kalman filter. *CSEE Journal of Power and Energy Systems*, **2020**,	2.3	2
117	Online simultaneous identification of parameters and order of a fractional order battery model. *Journal of Cleaner Production*, **2020**, 247, 119147	10.3	21
116	An Adaptive Partial Feedback Linearizing Control Scheme: An Application to a Single Machine Infinite Bus System. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2020**, 67, 2557-2561	3.5	7
115	Optimally sizing of battery energy storage capacity by operational optimization of residential PV-Battery systems: An Australian household case study. *Renewable Energy*, **2020**, 160, 852-864	8.1	31
114	Lithium-ion battery aging mechanisms and diagnosis method for automotive applications: Recent advances and perspectives. *Renewable and Sustainable Energy Reviews*, **2020**, 131, 110048	16.2	97
113	Model predictive control based real-time energy management for a hybrid energy storage system. *CSEE Journal of Power and Energy Systems*, **2020**,	2.3	2
112	Fractional order battery modelling methodologies for electric vehicle applications: Recent advances and perspectives. *Science China Technological Sciences*, **2020**, 63, 2211-2230	3.5	8
111	IEEE Access Special Section Editorial: Advanced Energy Storage Technologies and Their Applications. *IEEE Access*, **2020**, 8, 218685-218693	3.5	3
110	Online Fault Diagnosis of External Short Circuit for Lithium-Ion Battery Pack. *IEEE Transactions on Industrial Electronics*, **2020**, 67, 1081-1091	8.9	67
109	A Nine-Level Inverter for Low-Voltage Applications. *IEEE Transactions on Power Electronics*, **2020**, 35, 1659-1671	7.2	12
108	Multiobjective Particle Swarm Optimization for Microgrids Pareto Optimization Dispatch. *Mathematical Problems in Engineering*, **2020**, 2020, 1-13	1.1	5
107	**2019**,		1

106	A distributed charging strategy based on day ahead price model for PV-powered electric vehicle charging station. *Applied Soft Computing Journal*, **2019**, 76, 638-648	7.5	18
105	Investigation of Internal Short Circuits of Lithium-Ion Batteries under Mechanical Abusive Conditions. *Energies*, **2019**, 12, 1885	3.1	14
104	Towards a smarter battery management system: A critical review on optimal charging methods of lithium ion batteries. *Energy*, **2019**, 183, 220-234	7.9	52
103	Hierarchical Optimization Method for Energy Scheduling of Multiple Microgrids. *Applied Sciences (Switzerland)*, **2019**, 9, 624	2.6	6
102	Frequency and time domain modelling and online state of charge monitoring for ultracapacitors. *Energy*, **2019**, 176, 874-887	7.9	13
101	Aging investigation of an echelon internal heating method on a three-electrode lithium ion cell at low temperatures. *Journal of Energy Storage*, **2019**, 25, 100878	7.8	15
100	State-of-charge estimation of lithium-ion battery using an improved neural network model and extended Kalman filter. *Journal of Cleaner Production*, **2019**, 234, 1153-1164	10.3	84
99	Improved constitutive model of the jellyroll for cylindrical lithium ion batteries considering microscopic damage. *Energy*, **2019**, 185, 202-212	7.9	11
98	A novel approach to reconstruct open circuit voltage for state of charge estimation of lithium ion batteries in electric vehicles. *Applied Energy*, **2019**, 255, 113758	10.7	40
97	Energy Market Management for Distribution Network with a Multi-Microgrid System: A Dynamic Game Approach. *Applied Sciences (Switzerland)*, **2019**, 9, 5436	2.6	2
96	**2019**,		3
95	Distributed Peer-to-Peer Electricity Trading Considering Network Loss in a Distribution System. *Energies*, **2019**, 12, 4318	3.1	5
94	A review on state of health estimation for lithium ion batteries in photovoltaic systems. *ETransportation*, **2019**, 2, 100028	12.7	46
93	A Novel Fractional Order Model for State of Charge Estimation in Lithium Ion Batteries. *IEEE Transactions on Vehicular Technology*, **2019**, 68, 4130-4139	6.8	101
92	Comparison of decomposition levels for wavelet transform based energy management in a plug-in hybrid electric vehicle. *Journal of Cleaner Production*, **2019**, 210, 1085-1097	10.3	22
91	A Sensor Fault Diagnosis Method for a Lithium-Ion Battery Pack in Electric Vehicles. *IEEE Transactions on Power Electronics*, **2019**, 34, 9709-9718	7.2	84
90	A novel thermal management system for improving discharge/charge performance of Li-ion battery packs under abuse. *Journal of Power Sources*, **2018**, 378, 759-775	8.9	24
89	A Lithium-Ion Battery-in-the-Loop Approach to Test and Validate Multiscale Dual H Infinity Filters for State-of-Charge and Capacity Estimation. *IEEE Transactions on Power Electronics*, **2018**, 33, 332-342	7.2	143

88	Review on sensors fault diagnosis and fault-tolerant techniques for lithium ion batteries in electric vehicles **2018**,		9
87	Application of Robust Design Methodology to Battery Packs for Electric Vehicles: Identification of Critical Technical Requirements for Modular Architecture. *Batteries*, **2018**, 4, 30	5.7	17
86	Battery Balancing **2018**, 183-229		
85	Battery State of Charge and State of Energy Estimation **2018**, 67-93		
84	Battery Charging **2018**, 155-182		
83	A New Rotor Position Measurement Method for Permanent Magnet Spherical Motors. *Applied Sciences (Switzerland)*, **2018**, 8, 2415	2.6	7
82	Robust nonlinear adaptive backstepping excitation controller design for rejecting external disturbances in multimachine power systems. *International Journal of Electrical Power and Energy Systems*, **2017**, 84, 76-86	5.1	19
81	. *IEEE Transactions on Energy Conversion*, **2017**, 32, 707-719	5.4	49
80	Neural network based computational model for estimation of heat generation in LiFePO4 pouch cells of different nominal capacities. *Computers and Chemical Engineering*, **2017**, 101, 81-94	4	22
79	Lithium-Ion Battery Parameters and State-of-Charge Joint Estimation Based on H-Infinity and Unscented Kalman Filters. *IEEE Transactions on Vehicular Technology*, **2017**, 66, 8693-8701	6.8	128
78	Critical analysis of open circuit voltage and its effect on estimation of irreversible heat for Li-ion pouch cells. *Journal of Power Sources*, **2017**, 350, 117-126	8.9	16
77	Nonlinear Adaptive Excitation Controller Design for Multimachine Power Systems With Unknown Stability Sensitive Parameters. *IEEE Transactions on Control Systems Technology*, **2017**, 25, 2060-2072	4.8	13
76	A Fast Multi-Switched Inductor Balancing System Based on a Fuzzy Logic Controller for Lithium-Ion Battery Packs in Electric Vehicles. *Energies*, **2017**, 10, 1034	3.1	13
75	An Improved Virtual Space Vector Modulation Scheme for Three-Level Active Neutral-Point-Clamped Inverter. *IEEE Transactions on Power Electronics*, **2017**, 32, 7419-7434	7.2	57
74	Lithium-Ion Battery Pack State of Charge and State of Energy Estimation Algorithms Using a Hardware-in-the-Loop Validation. *IEEE Transactions on Power Electronics*, **2017**, 32, 4421-4431	7.2	129
73	Novel active LiFePO4 battery balancing method based on chargeable and dischargeable capacity. *Computers and Chemical Engineering*, **2017**, 97, 27-35	4	23
72	Fuzzy logic controller for battery balancing system for lithium-iron phosphate battery pack **2017**,		1
71	Neutral-point potential balancing control strategy of three-level active NPC inverter based on SHEPWM. *IET Power Electronics*, **2017**, 10, 1943-1950	2.2	25

70	Robust direct power control of grid-connected photovoltaic systems based on adaptive partial feedback linearization **2017**,		4
69	State of charge estimation for battery packs using H-infinity observer in underground mine electric vehicles. *Australian Journal of Electrical and Electronics Engineering*, **2017**, 14, 49-58	0.6	2
68	A Novel Active Online State of Charge Based Balancing Approach for Lithium-Ion Battery Packs during Fast Charging Process in Electric Vehicles. *Energies*, **2017**, 10, 1766	3.1	12
67	Efficiency analysis of a bidirectional DC/DC converter in a hybrid energy storage system for plug-in hybrid electric vehicles. *Applied Energy*, **2016**, 183, 612-622	10.7	42
66	H infinity observer based state of charge estimation for battery packs in electric vehicles **2016**,		2
65	Robust adaptive backstepping controller design for DC-DC buck converters with external disturbances **2016**,		3
64	Stability enhancement of DFIG wind turbine using LQR pitch control over rated wind speed **2016**,		4
63	Intelligent battery management for electric and hybrid electric vehicles: A survey **2016**,		2
62	. *IEEE Transactions on Vehicular Technology*, **2016**, 65, 1936-1947	6.8	98
61	Review of mechanical design and strategic placement technique of a robust battery pack for electric vehicles. *Renewable and Sustainable Energy Reviews*, **2016**, 60, 1319-1331	16.2	115
60	A novel multi-model probability battery state of charge estimation approach for electric vehicles using H-infinity algorithm. *Applied Energy*, **2016**, 166, 76-83	10.7	130
59	A novel efficient numerical method to simulate electrochemical process for a lithium ion battery. *Russian Journal of Electrochemistry*, **2016**, 52, 584-594	1.2	1
58	Sliding mode control of longitudinal motions for underground mining electric vehicles with parametric uncertainties. *International Journal of Modelling, Identification and Control*, **2016**, 26, 68	0.6	3
57	Non-linear adaptive coordinated controller design for multimachine power systems to improve transient stability. *IET Generation, Transmission and Distribution*, **2016**, 10, 3353-3363	2.5	14
56	A review on transient stability of DFIG integrated power system. *International Journal of Sustainable Engineering*, **2015**, 8, 405-416	3.1	8
55	Transient stability of power system integrated with doubly fed induction generator wind farms. *IET Renewable Power Generation*, **2015**, 9, 184-194	2.9	33
54	An improved theoretical electrochemical-thermal modelling of lithium-ion battery packs in electric vehicles. *Journal of Power Sources*, **2015**, 284, 328-338	8.9	55
53	Nonlinear adaptive excitation controller design for multimachine power systems **2015**,		3

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52	Robust active disturbance rejection controller design to improve low-voltage ride-through capability of doubly fed induction generator wind farms. *IET Renewable Power Generation*, **2015**, 9, 961-969	2.9	26
51	New charging strategy for lithium-ion batteries based on the integration of Taguchi method and state of charge estimation. *Journal of Power Sources*, **2015**, 273, 413-422	8.9	87
50	Self-organising map based classification of LiFePO4 cells for battery pack in EVs. *International Journal of Vehicle Design*, **2015**, 69, 151	2.4	9
49	Designing a Robust Battery Pack for Electric Vehicles Using a Modified Parameter Diagram **2015**,		2
48	Nonlinear excitation control of synchronous generators based on adaptive backstepping method **2015**,		5
47	Robust adaptive backstepping excitation controller design for simple power system models with external disturbances **2015**,		3
46	A nonlinear adaptive backstepping approach for coordinated excitation and steam-valving control of synchronous generators **2015**,		5
45	Comparison of two battery equivalent circuit models for state of charge estimation in electric vehicles **2015**,		3
44	A novel approach for state of charge estimation based on adaptive switching gain sliding mode observer in electric vehicles. *Journal of Power Sources*, **2014**, 246, 667-678	8.9	136
43	Robust sliding mode observer using RBF neural network for lithium-ion battery state of charge estimation in electric vehicles **2014**,		3
42	. *IEEE Transactions on Industrial Informatics*, **2014**, 10, 2003-2015	11.9	54
41	Dynamic validated model of a DFIG wind turbine. *International Journal of Renewable Energy Technology*, **2014**, 5, 372	0.1	2
40	Investigation of critical parameters for stability analysis of wind generation systems with DFIGs **2014**,		1
39	Quantitative assessment and comparison of fault responses for synchronous generator and wind turbine generators based on modified transient energy function. *IET Renewable Power Generation*, **2014**, 8, 474-483	2.9	18
38	Adaptive gain sliding mode observer for state of charge estimation based on combined battery equivalent circuit model. *Computers and Chemical Engineering*, **2014**, 64, 114-123	4	47
37	Sliding Mode Control for Steer-by-Wire Systems With AC Motors in Road Vehicles. *IEEE Transactions on Industrial Electronics*, **2014**, 61, 1596-1611	8.9	120
36	Robust sliding mode control for Steer-by-Wire systems with AC motors in road vehicles **2013**,		3
35	Economical evaluation of large-scale photovoltaic systems using Universal Generating Function techniques. *Journal of Modern Power Systems and Clean Energy*, **2013**, 1, 167-176	4	7

34	Development of Thermal-Electrochemical Model for Lithium Ion 18650 Battery Packs in Electric Vehicles **2013**,		1
33	State of charge estimation based on improved Li-ion battery model using extended Kalman filter **2013**,		1
32	Adaptive gain sliding mode observer for state of charge estimation based on combined battery equivalent circuit model in electric vehicles **2013**,		4
31	A novel aggregated DFIG wind farm model using mechanical torque compensating factor. *Energy Conversion and Management*, **2013**, 67, 265-274	10.6	40
30	Comparative study on fault responses of synchronous generators and wind turbine generators using transient stability index based on transient energy function. *International Journal of Electrical Power and Energy Systems*, **2013**, 51, 145-152	5.1	20
29	The mathematical model of 18650 lithium-ion battery in electric vehicles **2013**,		3
28	Smoothing wind power fluctuations by fuzzy logic pitch angle controller. *Renewable Energy*, **2012**, 38, 224-233	8.1	83
27	An overview of lithium-ion batteries for electric vehicles **2012**,		41
26	A comparative study of observer design techniques for state of charge estimation in electric vehicles **2012**,		5
25	Experimental comparison of charging algorithms for a lithium-ion battery **2012**,		2
24	Charging algorithms of lithium-ion batteries: An overview **2012**,		19
23	Impact of electric vehicles and renewable energy systems on cost and emission of electricity **2012**,		2
22	Development of a mathematical model for solar module in photovoltaic systems **2011**,		4
21	Expected energy production evaluation for photovoltaic systems **2011**,		2
20	Investigation of standalone photovoltaic systems **2011**,		1
19	A novel approach of maximizing energy harvesting in photovoltaic systems based on bisection search theorem **2010**,		22
18	Fast finite-time consensus of a class of high-order uncertain nonlinear systems **2010**,		8
17	Optimally sizing of solar array and battery in a standalone photovoltaic system in Malaysia. *Renewable Energy*, **2009**, 34, 348-352	8.1	122

LIST OF PUBLICATIONS

No.	Title	IF	Cit.
16	Mathematical model of a solar module for energy yield simulation in photovoltaic systems **2009**,		11
15	Single-Phase Uninterruptible Power Supply Based on Z-Source Inverter. *IEEE Transactions on Industrial Electronics*, **2008**, 55, 2997-3004	8.9	131
14	A new terminal sliding mode tracking control for a class of nonminimum phase systems with uncertain dynamics **2008**,		6
13	Application of genetic algorithms in the design of a solar array-exclusive standalone photovoltaic system **2008**,		1
12	State of available capacity estimation for lead-acid batteries in electric vehicles using neural network. *Energy Conversion and Management*, **2007**, 48, 433-442	10.6	58
11	Study on the Control Strategy for Parallel Operation of Inverters Based on Adaptive Droop Method **2006**,		9
10	Development of a LabVIEW-based test facility for standalone PV systems **2006**,		4
9	Design of Single Phase Grid-connected Photovoltaic Power Plant based on String Inverters **2006**,		8
8	Estimation of Residual Available Capacity for Lead Acid Batteries in Electric Vehicles. *Journal of Asian Electric Vehicles*, **2006**, 4, 861-867	0.3	
7	Neural network-based residual capacity indicator for nickel-metal hydride batteries in electric vehicles. *IEEE Transactions on Vehicular Technology*, **2005**, 54, 1705-1712	6.8	51
6	A study on standalone photovoltaic system with real meteorological data at Malaysia **2005**,		2
5	A new battery capacity indicator for nickel-metal hydride battery powered electric vehicles using adaptive neuro-fuzzy inference system. *Energy Conversion and Management*, **2003**, 44, 2059-2071	10.6	24
4	A new battery available capacity indicator for electric vehicles using neural network. *Energy Conversion and Management*, **2002**, 43, 817-826	10.6	87
3	Estimation of battery available capacity under variable discharge currents. *Journal of Power Sources*, **2002**, 103, 180-187	8.9	31
2	Adaptive neuro-fuzzy modeling of battery residual capacity for electric vehicles. *IEEE Transactions on Industrial Electronics*, **2002**, 49, 677-684	8.9	72
1	The available capacity computation model based on artificial neural network for lead-acid batteries in electric vehicles. *Journal of Power Sources*, **2000**, 87, 201-204	8.9	142