

Zhenpo Wang

List of Publications by Year in descending order

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104
papers

5,859
citations

109137

35
h-index

76769

74
g-index

104
all docs

104
docs citations

104
times ranked

3971
citing authors

#	ARTICLE	IF	CITATIONS
1	Sustainable Recycling Technology for Li-Ion Batteries and Beyond: Challenges and Future Prospects. <i>Chemical Reviews</i> , 2020, 120, 7020-7063.	23.0	957
2	A review of fractional-order techniques applied to lithium-ion batteries, lead-acid batteries, and supercapacitors. <i>Journal of Power Sources</i> , 2018, 390, 286-296.	4.0	367
3	Grid Power Peak Shaving and Valley Filling Using Vehicle-to-Grid Systems. <i>IEEE Transactions on Power Delivery</i> , 2013, 28, 1822-1829.	2.9	272
4	State-of-health estimation for Li-ion batteries by combing the incremental capacity analysis method with grey relational analysis. <i>Journal of Power Sources</i> , 2019, 410-411, 106-114.	4.0	255
5	State of health estimation for Li-Ion battery using incremental capacity analysis and Gaussian process regression. <i>Energy</i> , 2020, 190, 116467.	4.5	237
6	Prognostic health condition for lithium battery using the partial incremental capacity and Gaussian process regression. <i>Journal of Power Sources</i> , 2019, 421, 56-67.	4.0	206
7	Fault prognosis of battery system based on accurate voltage abnormality prognosis using long short-term memory neural networks. <i>Applied Energy</i> , 2019, 251, 113381.	5.1	191
8	An Overview on Thermal Safety Issues of Lithium-ion Batteries for Electric Vehicle Application. <i>IEEE Access</i> , 2018, 6, 23848-23863.	2.6	180
9	Co-estimation of capacity and state-of-charge for lithium-ion batteries in electric vehicles. <i>Energy</i> , 2019, 174, 33-44.	4.5	180
10	Voltage fault diagnosis and prognosis of battery systems based on entropy and Z -score for electric vehicles. <i>Applied Energy</i> , 2017, 196, 289-302.	5.1	178
11	Battery Aging Assessment for Real-World Electric Buses Based on Incremental Capacity Analysis and Radial Basis Function Neural Network. <i>IEEE Transactions on Industrial Informatics</i> , 2020, 16, 3345-3354.	7.2	167
12	Battery Fault Diagnosis for Electric Vehicles Based on Voltage Abnormality by Combining the Long Short-Term Memory Neural Network and the Equivalent Circuit Model. <i>IEEE Transactions on Power Electronics</i> , 2021, 36, 1303-1315.	5.4	157
13	State-of-Health Estimation for Lithium-Ion Batteries Based on the Multi-Island Genetic Algorithm and the Gaussian Process Regression. <i>IEEE Access</i> , 2017, 5, 21286-21295.	2.6	142
14	A novel fault diagnosis method for lithium-ion battery packs of electric vehicles. <i>Measurement: Journal of the International Measurement Confederation</i> , 2018, 116, 402-411.	2.5	131
15	Longitudinal Vehicle Speed Estimation for Four-Wheel-Independently-Actuated Electric Vehicles Based on Multi-Sensor Fusion. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 12797-12806.	3.9	118
16	Overcharge-to-thermal-runaway behavior and safety assessment of commercial lithium-ion cells with different cathode materials: A comparison study. <i>Journal of Energy Chemistry</i> , 2021, 55, 484-498.	7.1	112
17	A Novel Consistency Evaluation Method for Series-Connected Battery Systems Based on Real-World Operation Data. <i>IEEE Transactions on Transportation Electrification</i> , 2021, 7, 437-451.	5.3	112
18	Lithium Battery State-of-Health Estimation via Differential Thermal Voltammetry With Gaussian Process Regression. <i>IEEE Transactions on Transportation Electrification</i> , 2021, 7, 16-25.	5.3	85

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19	Internal short circuit and failure mechanisms of lithium-ion pouch cells under mechanical indentation abuse conditions: An experimental study. <i>Journal of Power Sources</i> , 2020, 455, 227939.	4.0	84
20	Online Parameter Identification of Ultracapacitor Models Using the Extended Kalman Filter. <i>Energies</i> , 2014, 7, 3204-3217.	1.6	82
21	A novel data-model fusion state-of-health estimation approach for lithium-ion batteries. <i>Applied Energy</i> , 2019, 237, 836-847.	5.1	69
22	A Data-Driven Method for Battery Charging Capacity Abnormality Diagnosis in Electric Vehicle Applications. <i>IEEE Transactions on Transportation Electrification</i> , 2022, 8, 990-999.	5.3	68
23	Thermal Runaway Prognosis of Battery Systems Using the Modified Multiscale Entropy in Real-World Electric Vehicles. <i>IEEE Transactions on Transportation Electrification</i> , 2021, 7, 2269-2278.	5.3	63
24	Synchronous multi-parameter prediction of battery systems on electric vehicles using long short-term memory networks. <i>Applied Energy</i> , 2019, 254, 113648.	5.1	60
25	Robust Lateral Motion Control for In-Wheel-Motor-Drive Electric Vehicles With Network Induced Delays. <i>IEEE Transactions on Vehicular Technology</i> , 2019, 68, 10585-10593.	3.9	60
26	Battery Thermal Runaway Fault Prognosis in Electric Vehicles Based on Abnormal Heat Generation and Deep Learning Algorithms. <i>IEEE Transactions on Power Electronics</i> , 2022, 37, 8513-8525.	5.4	60
27	Vehicle Stability Enhancement through Hierarchical Control for a Four-Wheel-Independently-Actuated Electric Vehicle. <i>Energies</i> , 2017, 10, 947.	1.6	58
28	A Vehicle Rollover Evaluation System Based on Enabling State and Parameter Estimation. <i>IEEE Transactions on Industrial Informatics</i> , 2021, 17, 4003-4013.	7.2	57
29	Entropy-Based Voltage Fault Diagnosis of Battery Systems for Electric Vehicles. <i>Energies</i> , 2018, 11, 136.	1.6	54
30	Chassis Coordinated Control for Full X-by-Wire Vehicles-A Review. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2021, 34, .	1.9	48
31	Big-Data-Based Thermal Runaway Prognosis of Battery Systems for Electric Vehicles. <i>Energies</i> , 2017, 10, 919.	1.6	47
32	Hybrid Control-Based Acceleration Slip Regulation for Four-Wheel-Independent-Actuated Electric Vehicles. <i>IEEE Transactions on Transportation Electrification</i> , 2021, 7, 1976-1989.	5.3	44
33	Evaluating Model Predictive Path Following and Yaw Stability Controllers for Over-Actuated Autonomous Electric Vehicles. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 12807-12821.	3.9	43
34	Fault-Tolerant Control for Intelligent Electrified Vehicles Against Front Wheel Steering Angle Sensor Faults During Trajectory Tracking. <i>IEEE Access</i> , 2021, 9, 65174-65186.	2.6	40
35	Offline and Online Blended Machine Learning for Lithium-Ion Battery Health State Estimation. <i>IEEE Transactions on Transportation Electrification</i> , 2022, 8, 1604-1618.	5.3	38
36	State and parameter estimation based on a modified particle filter for an in-wheel-motor-drive electric vehicle. <i>Mechanism and Machine Theory</i> , 2019, 133, 606-624.	2.7	36

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37	Sideslip angle estimation of ground vehicles: a comparative study. IET Control Theory and Applications, 2020, 14, 3490-3505.	1.2	35
38	Event-Triggered Vehicle Sideslip Angle Estimation Based on Low-Cost Sensors. IEEE Transactions on Industrial Informatics, 2022, 18, 4466-4476.	7.2	34
39	Frequency and Parameter Combined Tuning Method of LCC-LCC Compensated Resonant Converter With Wide Coupling Variation for EV Wireless Charger. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 956-968.	3.7	31
40	Integrated Vehicle-Following Control for Four-Wheel-Independent-Drive Electric Vehicles Against Non-Ideal V2X Communication. IEEE Transactions on Vehicular Technology, 2022, 71, 3648-3659.	3.9	31
41	Automotive ABS/DYC Coordinated Control Under Complex Driving Conditions. IEEE Access, 2018, 6, 32769-32779.	2.6	29
42	A Hybrid Mode Control Strategy for LCC-LCC-Compensated WPT System With Wide ZVS Operation. IEEE Transactions on Power Electronics, 2022, 37, 2449-2460.	5.4	29
43	An Online Data-Driven Fault Diagnosis and Thermal Runaway Early Warning for Electric Vehicle Batteries. IEEE Transactions on Power Electronics, 2022, 37, 12636-12646.	5.4	29
44	Data-driven framework for large-scale prediction of charging energy in electric vehicles. Applied Energy, 2021, 282, 116175.	5.1	28
45	Multi-fault synergistic diagnosis of battery systems based on the modified multi-scale entropy. International Journal of Energy Research, 2019, 43, 8350-8369.	2.2	26
46	Advanced Vehicle State Monitoring: Evaluating Moving Horizon Estimators and Unscented Kalman Filter. IEEE Transactions on Vehicular Technology, 2019, 68, 5430-5442.	3.9	26
47	Data-driven energy management and velocity prediction for four-wheel-independent-driving electric vehicles. ETransportation, 2021, 9, 100119.	6.8	26
48	Explosion behavior investigation and safety assessment of large-format lithium-ion pouch cells. Journal of Energy Chemistry, 2022, 72, 241-257.	7.1	23
49	Assessment of battery utilization and energy consumption in the large-scale development of urban electric vehicles. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	22
50	Electric Vehicle Battery Fault Diagnosis Based on Statistical Method. Energy Procedia, 2017, 105, 2366-2371.	1.8	21
51	A Novel Design Method of LCC-S Compensated Inductive Power Transfer System Combining Constant Current and Constant Voltage Mode via Frequency Switching. IEEE Access, 2021, 9, 117244-117256.	2.6	21
52	Thermal Runaway Characteristics of a Large Format Lithium-Ion Battery Module. Energies, 2019, 12, 3099.	1.6	20
53	DBSCAN-Based Thermal Runaway Diagnosis of Battery Systems for Electric Vehicles. Energies, 2019, 12, 2977.	1.6	20
54	Data-Driven Ohmic Resistance Estimation of Battery Packs for Electric Vehicles. Energies, 2019, 12, 4772.	1.6	20

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55	Modified Relative Entropy-Based Lithium-Ion Battery Pack Online Short-Circuit Detection for Electric Vehicle. IEEE Transactions on Transportation Electrification, 2022, 8, 1710-1723.	5.3	20
56	Lateral stability enhancement based on a novel sliding mode prediction control for a four-wheel independently actuated electric vehicle. IET Intelligent Transport Systems, 2019, 13, 124-133.	1.7	19
57	An Enabling Trajectory Planning Scheme for Lane Change Collision Avoidance on Highways. IEEE Transactions on Intelligent Vehicles, 2023, 8, 147-158.	9.4	19
58	Optimization of an Energy Storage System for Electric Bus Fast-Charging Station. Energies, 2021, 14, 4143.	1.6	18
59	State-of-Health Estimation for LiFePO ₄ Battery System on Real-World Electric Vehicles Considering Aging Stage. IEEE Transactions on Transportation Electrification, 2022, 8, 1724-1733.	5.3	18
60	Post-Impact Motion Planning and Tracking Control for Autonomous Vehicles. Chinese Journal of Mechanical Engineering (English Edition), 2022, 35, .	1.9	18
61	The Design and Coupler Optimization of a Single-Transmitter Coupled Multireceiver Inductive Power Transfer System for Maglev Trains. IEEE Transactions on Transportation Electrification, 2021, 7, 3173-3184.	5.3	12
62	Comparative Study of Incremental Capacity Curve Determination Methods for Lithium-Ion Batteries Considering the Real-World Situation. IEEE Transactions on Power Electronics, 2022, 37, 12563-12576.	5.4	12
63	Timely Thermal Runaway Prognosis for Battery Systems in Real-World Electric Vehicles Based on Temperature Abnormality. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2023, 11, 120-130.	3.7	10
64	Vehicle sideslip angle estimation for a four-wheel-independent-drive electric vehicle based on a hybrid estimator and a moving polynomial Kalman smoother. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2019, 233, 125-140.	0.5	9
65	Real-time identification of partnership for a new generation of vehicles battery model parameters based on the model reference adaptive system. International Journal of Energy Research, 2021, 45, 9351-9368.	2.2	9
66	Event-Triggered Vehicle-Following Control for Connected and Automated Vehicles under Nonideal Vehicle-to-Vehicle Communications. , 2021, , .		9
67	Driving Event Recognition of Battery Electric Taxi Based on Big Data Analysis. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 9200-9209.	4.7	8
68	Thermal Property Measurements of a Large Prismatic Lithium-ion Battery for Electric Vehicles. Journal of Thermal Science, 2021, 30, 477-492.	0.9	8
69	Voltage Fault Diagnosis of Power Batteries based on Boxplots and Gini Impurity for Electric Vehicles. , 2019, , .		7
70	Active camber for enhancing path following and yaw stability of over-actuated autonomous electric vehicles. Vehicle System Dynamics, 2021, 59, 800-821.	2.2	7
71	An Enhanced Dual Active Bridge Converter With Full Domain ZVS by Utilizing a Simple Segment Control for Wide Voltage Range Applications. IEEE Transactions on Industrial Electronics, 2022, 69, 6817-6827.	5.2	7
72	A Dual-Transformer-Based Hybrid Dual Active Bridge Converter for Plug-in Electric Vehicle Charging to Cope With Wide Load Voltages. IEEE Transactions on Industrial Electronics, 2023, 70, 1444-1454.	5.2	7

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73	Multiobjective Thermal Optimization Based on Improved Analytical Thermal Models of a 30-kW IPT System for EVs. IEEE Transactions on Transportation Electrification, 2023, 9, 1910-1926.	5.3	7
74	Integrated Sizing and Energy Management for Four-Wheel-Independently-Actuated Electric Vehicles Considering Realistic Constructed Driving Cycles. Energies, 2018, 11, 1768.	1.6	6
75	Optimal Sizing of On-Board Energy Storage Systems and Stationary Charging Infrastructures for a Catenary-Free Tram. Energies, 2020, 13, 6227.	1.6	6
76	Analyzing Charging Behavior of Electric City Buses in Typical Chinese Cities. IEEE Access, 2020, 8, 4466-4474.	2.6	6
77	Research on a novel data-driven aging estimation method for battery systems in real-world electric vehicles. Advances in Mechanical Engineering, 2021, 13, 168781402110277.	0.8	6
78	Simplified Closed-Form Optimized Trajectories Control for a Dual Active Bridge Converter With ZVS Implementation Over Whole Domain. IEEE Transactions on Power Electronics, 2022, 37, 11749-11761.	5.4	6
79	Analysis and Design of Double-sided LCLC Compensation Parameters with Coupling-insensitive ZVS Operation for Capacitive Power Transfer. , 2019, , .		5
80	Novel Polarization Voltage Model: Accurate Voltage and State of Power Prediction. IEEE Access, 2020, , 1-1.	2.6	5
81	A Time-delay Neural Network of Sideslip Angle Estimation for In-wheel Motor Drive Electric Vehicles. , 2020, , .		5
82	A Novel Voltage-Fed Hybrid Bridge Combining Semiactive Rectifier Converter for Wide Voltage Gain. IEEE Transactions on Industrial Electronics, 2022, 69, 365-375.	5.2	5
83	Cloud Platform-Oriented Electrical Vehicle Abnormal Battery Cell Detection and Pack Consistency Evaluation With Big Data: Devising an Early-Warning System for Latent Risks. IEEE Industry Applications Magazine, 2022, 28, 44-55.	0.3	5
84	Relative Entropy based Lithium-ion Battery Pack Short Circuit Detection for Electric Vehicle. , 2020, , .		5
85	A Comparison Study of Compensation Topologies for Capacitive Power Transfer. , 2019, , .		4
86	High-dimensional data abnormality detection based on improved Variance-of-Angle (VOA) algorithm for electric vehicles battery. , 2019, , .		4
87	Electric Vehicle Charging Facility Planning Based on Flow Demandâ€”A Case Study. Sustainability, 2021, 13, 4952.	1.6	4
88	Speed Planning for Autonomous Driving in Dynamic Urban Driving Scenarios. , 2020, , .		4
89	A Control Strategy for ZVS Realization in LCC-S Compensated WPT System with Semi Bridgeless Active Rectifier for Wireless EV Charging. , 2021, , .		4
90	Technical and economic analysis of pure-electric vehicles based on the life-cycle cost theory. , 2011, , .		3

#	ARTICLE	IF	CITATIONS
91	A Novel Control Method for A Primary Triple Bridges Dual Active Bridge DC-DC Converter with Minimum RMS Current Optimization. , 2020, , .		3
92	A Vehicle Rollover Prediction System Based on Lateral Load Transfer Ratio. , 2020, , .		3
93	Magnetic Coupler Robust Optimization Design for Electric Vehicle Wireless Charger Based on Improved Simulated Annealing Algorithm. Automotive Innovation, 2022, 5, 29-42.	3.1	3
94	Analysis of Multi-Pickup Inductive Power Transfer System with LCC Compensation for Maglev Train. , 2019, , .		2
95	Multi-Objective Optimization of Single-Transmitter Coupled Multi-Receiver IPT System for Maglev Trains. , 2020, , .		2
96	Influence of Tire Inflation Pressure on Vehicle Dynamics and Compensation Control on FWID Electric Vehicles. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2020, 142, .	0.9	2
97	A Detuned LCC-LCC Compensation Topology with Coupling Variation Resisting for EV Wireless Charger. , 2020, , .		2
98	A dynamic lane-changing trajectory planning scheme for autonomous vehicles on structured road. , 2020, , .		2
99	Study on control strategy of V2G in power peaking. , 2011, , .		1
100	A Real-Time Dynamic Trajectory Planning for Autonomous Driving Vehicles. , 2019, , .		1
101	The Technological Development of Domestic Li-ion Power Battery and Its Application on the Electric Vehicle. Journal of Asian Electric Vehicles, 2005, 3, 743-746.	0.4	1
102	Battery Fault Prognosis for Electric Vehicles Based on AOM-ARIMA-LSTM in Real Time. , 2022, , .		1
103	The Analysis of a Ferriteless Rectangular Coupler With Reactive Assistive shielding Coils For EV Wireless Charging. , 2019, , .		0
104	Multi-objective optimization of ground-side coils for dynamic wireless power transfer considering coupling variations. , 2022, , .		0