Xiaosong Hu

List of Articles by Year in descending order

235 PR articles	26,302 PR citations	2877 92 PR h-index	6994 154 g-index
274 documents	31347 doc citations	2884 99 h-index	19791 citing authors

#	Article	IF	Citations
1	Bias-Compensated State of Charge and State of Health Joint Estimation for Lithium Iron Phosphate Batteries. IEEE Transactions on Power Electronics, 2025, 40, 3033-3042.	4.9	9
2	Experience-Shared Variable-Step Predictive Control of Range-Extended Electric Vehicles Using Transferable Driver Model. IEEE Transactions on Intelligent Transportation Systems, 2025, 26, 1123-1133.	7.8	2
3	Non-destructive degradation pattern decoupling for early battery trajectory prediction via physics-informed learning. Energy and Environmental Science, 2025, 18, 1544-1559.	30.8	41
4	Unlocking Interpretable Prediction of Battery Random Discharge Capacity With Domain Adaptative Physics Constraint. Advanced Energy Materials, 2025, 15, .	22.5	8
5	Multi-modal framework for battery state of health evaluation using open-source electric vehicle data. Nature Communications, 2025, 16, .	13.7	77
6	Optimal battery charging of electric flying cars considering quantified safety and economic costs. Energy Conversion and Management, 2025, 327, 119576.	10.5	4
7	Energy storage management in electric vehicles. , 2025, 1, 161-175.		9
8	Co-Optimized Analytical Solution of Speed Planning and Energy Management for Automated Hybrid Electric Vehicles Under Multisignal Intersections Scenario. IEEE Transactions on Transportation Electrification, 2025, 11, 7991-8004.	6.8	3
9	Privacy-preserving integrated thermal and energy management of multi connected hybrid electric vehicles with federated reinforcement learning. Applied Energy, 2025, 385, 125386.	10.5	22
10	Enabling high-fidelity electrothermal modeling of electric flying car batteries: A physics-data hybrid approach. Applied Energy, 2025, 388, 125633.	10.5	7
11	A PID Framework With Intelligent Derivative Control and Model Bias for Robust State Estimation of Large Format Lithium-ion Batteries. IEEE/ASME Transactions on Mechatronics, 2025, 30, 8038-8050.	6.1	5
12	Deep Reinforcement Learning Guided Framework for State Estimation of Li-ion Batteries: A Control-Oriented Approach With High Adaptability. IEEE/ASME Transactions on Mechatronics, 2025, 30, 5097-5109.	6.1	4
13	Fault detection and safety risk evaluation of lithium-ion batteries based on confidence interval of Gaussian process regression for real-world application. Mechanical Systems and Signal Processing, 2025, 235, 112951.	7.7	8
14	Traffic-aware hierarchical eco-driving approach for connected hybrid electric vehicles at signalized intersections. Energy, 2025, 334, 137596.	8.9	0
15	Rapid battery pack state of health estimation for electric vehicles considering polarization features in multi-stage charging. Energy, 2025, 335, 138070.	8.9	1
16	Correction to the â€œIntegrated control of braking and steering subsystems for autonomous vehicle based on an efficient yaw moment distributionâ€• IEEE Transactions on Industrial Electronics, 2024, , 1-1.	6.5	3
17	Fault Diagnosis of Electric City Bus High-Voltage Load System Based on Multidomain Sparse Representation. IEEE Transactions on Transportation Electrification, 2024, 10, 1207-1221.	6.8	3
18	Sensorless Temperature Monitoring of Lithium-Ion Batteries by Integrating Physics With Machine Learning. IEEE Transactions on Transportation Electrification, 2024, 10, 2643-2652.	6.8	29

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19	Predictive health assessment for lithium-ion batteries with probabilistic degradation prediction and accelerating aging detection. Reliability Engineering and System Safety, 2024, 241, 109603.	10.4	67
20	Hierarchical Control Strategies for Connected Heavy-Duty Modular Fuel Cell Vehicles via Decentralized Convex Optimization. IEEE Transactions on Vehicular Technology, 2024, 73, 333-347.	5.7	24
21	Thermal state monitoring of lithium-ion batteries: Progress, challenges, and opportunities. Progress in Energy and Combustion Science, 2024, 100, 101120.	39.1	213
22	Energy Management Strategies for Fuel Cell Vehicles: A Comprehensive Review of the Latest Progress in Modeling, Strategies, and Future Prospects. IEEE Transactions on Intelligent Transportation Systems, 2024, 25, 14-32.	7.8	95
23	Energy Management in Plug-In Hybrid Electric Vehicles: Preheating the Battery Packs in Low-Temperature Driving Scenarios. IEEE Transactions on Intelligent Transportation Systems, 2024, 25, 1978-1991.	7.8	39
24	Traffic Information-Based Hierarchical Control Strategies for Eco-Driving of Plug-In Hybrid Electric Vehicles. IEEE Transactions on Vehicular Technology, 2024, 73, 3206-3217.	5.7	8
25	Rapid health estimation of in-service battery packs based on limited labels and domain adaptation. Journal of Energy Chemistry, 2024, 89, 345-354.	14.2	89
26	Degradation Pattern Recognition and Features Extrapolation for Battery Capacity Trajectory Prediction. IEEE Transactions on Transportation Electrification, 2024, 10, 7565-7579.	6.8	31
27	Challenges and opportunities for second-life batteries: Key technologies and economy. Renewable and Sustainable Energy Reviews, 2024, 192, 114191.	16.5	110
28	Sustainable plug-in electric vehicle integration into power systems. Nature Reviews Electrical Engineering, 2024, 1, 35-52.	0.0	50
29	Battery pack capacity estimation for electric vehicles based on enhanced machine learning and field data. Journal of Energy Chemistry, 2024, 92, 605-618.	14.2	54
30	Online Sensorless Temperature Estimation of Lithium-Ion Batteries Through Electro-Thermal Coupling. IEEE/ASME Transactions on Mechatronics, 2024, 29, 4156-4167.	6.1	14
31	A novel nonlinearity-aware adaptive observer for estimating surface concentration and state of charge of lithium-ion batteries. Journal of Power Sources, 2024, 602, 234373.	7.9	6
32	Enhanced Electrothermal State Estimation and Experimental Validations for Electric Flying Car Batteries. IEEE/ASME Transactions on Mechatronics, 2024, 29, 4456-4467.	6.1	6
33	Techno-economic assessment of isolated micro-grids with second-life batteries: A reliability-oriented iterative design framework. Applied Energy, 2024, 364, 123068.	10.5	17
34	Integrated Framework for Accurate State Estimation of Lithium-Ion Batteries Subject to Measurement Uncertainties. IEEE Transactions on Power Electronics, 2024, 39, 8813-8823.	4.9	24
35	Big field data-driven battery pack health estimation for electric vehicles: A deep-fusion transfer learning approach. Mechanical Systems and Signal Processing, 2024, 218, 111585.	7.7	35
36	Co-estimation of state-of-charge and capacity for series-connected battery packs based on multi-method fusion and field data. Journal of Power Sources, 2024, 615, 235114.	7.9	13

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37	Comparative Analysis of Control Observer-Based Methods for State Estimation of Lithium-Ion Batteries in Practical Scenarios. IEEE/ASME Transactions on Mechatronics, 2024, , 1-13.	6.1	13
38	Efficient battery fault monitoring in electric vehicles: Advancing from detection to quantification. Energy, 2024, 313, 134150.	8.9	21
39	Coestimation of SOC and Three-Dimensional SOT for Lithium-Ion Batteries Based on Distributed Spatialâ€“Temporal Online Correction. IEEE Transactions on Industrial Electronics, 2023, 70, 5937-5948.	6.5	71
40	A Novel Hybrid Physics-Based and Data-Driven Approach for Degradation Trajectory Prediction in Li-Ion Batteries. IEEE Transactions on Transportation Electrification, 2023, 9, 2628-2644.	6.8	70
41	Joint Optimization of Configuration, Component Sizing, and Energy Management for Input-Split Hybrid Powertrains. IEEE Transactions on Vehicular Technology, 2023, 72, 1649-1661.	5.7	21
42	Semi-Supervised Self-Learning-Based Lifetime Prediction for Batteries. IEEE Transactions on Industrial Informatics, 2023, 19, 6471-6481.	9.3	69
43	Predictive energy management with engine switching control for hybrid electric vehicle via ADMM. Energy, 2023, 263, 125971.	8.9	32
44	An Internal Heating Strategy for Lithium-Ion Batteries Without Lithium Plating Based on Self-Adaptive Alternating Current Pulse. IEEE Transactions on Vehicular Technology, 2023, 72, 5809-5823.	5.7	52
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46	An Early Soft Internal Short-Circuit Fault Diagnosis Method for Lithium-Ion Battery Packs in Electric Vehicles. IEEE/ASME Transactions on Mechatronics, 2023, 28, 644-655.	6.1	71
47	Prognostics of battery capacity based on charging data and data-driven methods for on-road vehicles. Applied Energy, 2023, 339, 120954.	10.5	184
48	Dynamic Traffic Prediction-Based Energy Management of Connected Plug-In Hybrid Electric Vehicles with Long Short-Term State of Charge Planning. IEEE Transactions on Vehicular Technology, 2023, 72, 5833-5846.	5.7	23
49	Battery States Monitoring for Electric Vehicles Based on Transferred Multi-Task Learning. IEEE Transactions on Vehicular Technology, 2023, 72, 10037-10047.	5.7	31
50	Data-driven battery capacity estimation based on partial discharging capacity curve for lithium-ion batteries. Journal of Energy Storage, 2023, 67, 107549.	8.7	29
51	Stochastic Velocity Prediction for Connected Vehicles Considering V2V Communication Interruption. IEEE Transactions on Intelligent Transportation Systems, 2023, , 1-14.	7.8	8
52	Hierarchical Optimization of Speed Planning and Energy Management for Connected Hybrid Electric Vehicles Under Multi-Lane and Signal Lights Aware Scenarios. IEEE Transactions on Intelligent Transportation Systems, 2023, 24, 14174-14188.	7.8	16
53	Integrating Model Predictive Control With Federated Reinforcement Learning for Decentralized Energy Management of Fuel Cell Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2023, 24, 13639-13653.	7.8	55
54	Health-conscious predictive energy management strategy with hybrid speed predictor for plug-in hybrid electric vehicles: Investigating the impact of battery electro-thermal-aging models. Applied Energy, 2023, 352, 121986.	10.5	41

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59	Module-Based Active Equalization for Battery Packs: A Two-Layer Model Predictive Control Strategy. IEEE Transactions on Transportation Electrification, 2022, 8, 149-159.	6.8	48
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62	State of health prognostics for series battery packs: A universal deep learning method. Energy, 2022, 238, 121857.	8.9	105
63	Battery Health-Aware and Deep Reinforcement Learning-Based Energy Management for Naturalistic Data-Driven Driving Scenarios. IEEE Transactions on Transportation Electrification, 2022, 8, 948-964.	6.8	67
64	RUBoost-Based Ensemble Machine Learning for Electrode Quality Classification in Li-ion Battery Manufacturing. IEEE/ASME Transactions on Mechatronics, 2022, 27, 2474-2483.	6.1	35
65	The role and application of convex modeling and optimization in electrified vehicles. Renewable and Sustainable Energy Reviews, 2022, 153, 111796.	16.5	32
66	A control strategy for cabin temperature of electric vehicle considering health ventilation for lowering virus infection. International Journal of Thermal Sciences, 2022, 172, 107371.	5.0	17
67	Increasing energy utilization of battery energy storage via active multivariable fusion-driven balancing. Energy, 2022, 243, 122772.	8.9	10
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69	Predictive energy management for plug-in hybrid electric vehicles considering electric motor thermal dynamics. Energy Conversion and Management, 2022, 251, 115022.	10.5	68
70	Data-Driven Battery State of Health Estimation Based on Random Partial Charging Data. IEEE Transactions on Power Electronics, 2022, 37, 5021-5031.	4.9	291
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72	Multi-Objective Design Optimization of a Novel Dual-Mode Power-Split Hybrid Powertrain. IEEE Transactions on Vehicular Technology, 2022, 71, 282-296.	5.7	37

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74	Lifetime and Aging Degradation Prognostics for Lithium-ion Battery Packs Based on a Cell to Pack Method. Chinese Journal of Mechanical Engineering (English Edition), 2022, 35, .	3.2	50
75	Visual Detection and Deep Reinforcement Learning-Based Car Following and Energy Management for Hybrid Electric Vehicles. IEEE Transactions on Transportation Electrification, 2022, 8, 2501-2515.	6.8	87
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81	Battery health evaluation using a short random segment of constant current charging. IScience, 2022, 25, 104260.	3.6	38
82	A Review of Second-Life Lithium-Ion Batteries for Stationary Energy Storage Applications. Proceedings of the IEEE, 2022, 110, 735-753.	9.5	151
83	A Novel Sensitivity Analysis to Moment of Inertia and Load Variations for PMSM Drives. IEEE Transactions on Power Electronics, 2022, 37, 13299-13309.	4.9	24
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87	Data efficient health prognostic for batteries based on sequential information-driven probabilistic neural network. Applied Energy, 2022, 323, 119663.	10.5	91
88	Toward high-accuracy and high-efficiency battery electrothermal modeling: A general approach to tackling modeling errors. ETransportation, 2022, 14, 100195.	16.1	27
89	Distributed energy management of home-vehicle Nexus with Stationary battery energy storage. Renewable and Sustainable Energy Reviews, 2022, 168, 112837.	16.5	13
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94	A Control-Oriented Electrothermal Model for Pouch-Type Electric Vehicle Batteries. IEEE Transactions on Power Electronics, 2021, 36, 5530-5544.	4.9	49
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102	A Particle Filter and Long Short-Term Memory Fusion Technique for Lithium-Ion Battery Remaining Useful Life Prediction. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2021, 143, .	1.1	36
103	Predictive Battery Health Management With Transfer Learning and Online Model Correction. IEEE Transactions on Vehicular Technology, 2021, 70, 1269-1277.	5.7	219
104	Improving Ride Comfort and Fuel Economy of Connected Hybrid Electric Vehicles Based on Traffic Signals and Real Road Information. IEEE Transactions on Vehicular Technology, 2021, 70, 3101-3112.	5.7	78
105	Active Cell Equalization Topologies Analysis for Battery Packs: A Systematic Review. IEEE Transactions on Power Electronics, 2021, 36, 9119-9135.	4.9	186
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110	Data-driven fault diagnosis and thermal runaway warning for battery packs using real-world vehicle data. Energy, 2021, 234, 121266.	8.9	179
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113	Joint Estimation of Inconsistency and State of Health for Series Battery Packs. Automotive Innovation, 2021, 4, 103-116.	3.7	60
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121	The sequential algorithm for combined state of charge and state of health estimation of lithium-ion battery based on active current injection. Energy, 2020, 193, 116732.	8.9	58
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128	Convex programming improved online power management in a range extended fuel cell electric truck. Journal of Power Sources, 2020, 476, 228642.	7.9	33
129	An improved resistance-based thermal model for prismatic lithium-ion battery charging. Applied Thermal Engineering, 2020, 180, 115794.	6.6	34
130	Stochastic optimization of a stationary energy storage system for a catenary-free tramline. Applied Energy, 2020, 280, 115711.	10.5	10
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153	Energy management strategies of connected HEVs and PHEVs: Recent progress and outlook. Progress in Energy and Combustion Science, 2019, 73, 235-256.	39.1	414
154	Convex programming energy management and components sizing of a plug-in fuel cell urban logistics vehicle. Journal of Power Sources, 2019, 423, 358-366.	7.9	115
155	A Heuristic Planning Reinforcement Learning-Based Energy Management for Power-Split Plug-in Hybrid Electric Vehicles. IEEE Transactions on Industrial Informatics, 2019, 15, 6436-6445.	9.3	175
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159	Pontryaginâ€™s Minimum Principle based model predictive control of energy management for a plug-in hybrid electric bus. Applied Energy, 2019, 236, 893-905.	10.5	367
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