

Heath F Hofmann

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7619509/publications.pdf>

Version: 2024-02-01

78
papers

6,833
citations

109264

35
h-index

133188

59
g-index

78
all docs

78
docs citations

78
times ranked

4747
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust State of Health estimation of lithium-ion batteries using convolutional neural network and random forest. <i>Journal of Energy Storage</i> , 2022, 48, 103857.	3.9	81
2	Hierarchical predictive control for electric vehicles with hybrid energy storage system under vehicle-following scenarios. <i>Energy</i> , 2022, 251, 123774.	4.5	24
3	Internal Short Circuit Detection for Parallel-Connected Battery Cells Using Convolutional Neural Network. <i>Automotive Innovation</i> , 2022, 5, 107.	3.1	4
4	Energy Efficient Platooning of Connected Electrified Vehicles Enabled by a Mixed Hybrid Electric Powertrain Architecture. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 20383-20397.	4.7	1
5	Control Strategy for Battery/Flywheel Hybrid Energy Storage in Electric Shipboard Microgrids. <i>IEEE Transactions on Industrial Informatics</i> , 2021, 17, 1089-1099.	7.2	34
6	A study of cell-to-cell variation of capacity in parallel-connected lithium-ion battery cells. <i>ETransportation</i> , 2021, 7, 100091.	6.8	48
7	Reduced-order models for electro-magnetic-structural coupling phenomena. <i>Mechanical Systems and Signal Processing</i> , 2021, 159, 107752.	4.4	0
8	Combined State and Parameter Estimation of Lithium-Ion Battery With Active Current Injection. <i>IEEE Transactions on Power Electronics</i> , 2020, 35, 4439-4447.	5.4	31
9	The sequential algorithm for combined state of charge and state of health estimation of lithium-ion battery based on active current injection. <i>Energy</i> , 2020, 193, 116732.	4.5	44
10	Simultaneous Identification and Control for Hybrid Energy Storage System Using Model Predictive Control and Active Signal Injection. <i>IEEE Transactions on Industrial Electronics</i> , 2020, 67, 9768-9778.	5.2	13
11	Individual Cell Fault Detection for Parallel-Connected Battery Cells Based on the Statistical Model and Analysis. , 2020, , .		4
12	Simultaneous Identification and Control Using Active Signal Injection for Series Hybrid Electric Vehicles Based on Dynamic Programming. <i>IEEE Transactions on Transportation Electrification</i> , 2020, 6, 298-307.	5.3	13
13	Computationally Efficient AC Resistance Model for Stator Winding With Rectangular Conductors. <i>IEEE Transactions on Magnetics</i> , 2020, 56, 1-9.	1.2	13
14	Parameter Identification and Maximum Power Estimation of Battery/Supercapacitor Hybrid Energy Storage System Based on Cramerâ€™Rao Bound Analysis. <i>IEEE Transactions on Power Electronics</i> , 2019, 34, 4831-4843.	5.4	51
15	Adaptive model predictive control for hybrid energy storage energy management in all-electric ship microgrids. <i>Energy Conversion and Management</i> , 2019, 198, 111929.	4.4	52
16	Current Profile Optimization for Combined State of Charge and State of Health Estimation of Lithium Ion Battery Based on Cramerâ€™Rao Bound Analysis. <i>IEEE Transactions on Power Electronics</i> , 2019, 34, 7067-7078.	5.4	52
17	Rotor Resistance Estimation for Induction Machines Using Carrier Signal Injection With Minimized Torque Ripple. <i>IEEE Transactions on Energy Conversion</i> , 2019, 34, 942-951.	3.7	11
18	Component sizing optimization of plug-in hybrid electric vehicles with the hybrid energy storage system. <i>Energy</i> , 2018, 144, 393-403.	4.5	103

#	ARTICLE	IF	CITATIONS
19	Control development and performance evaluation for battery/flywheel hybrid energy storage solutions to mitigate load fluctuations in all-electric ship propulsion systems. <i>Applied Energy</i> , 2018, 212, 919-930.	5.1	97
20	The battery-supercapacitor hybrid energy storage system in electric vehicle applications: A case study. <i>Energy</i> , 2018, 154, 433-441.	4.5	161
21	Adaptive model predictive control with propulsion load estimation and prediction for all-electric ship energy management. <i>Energy</i> , 2018, 150, 877-889.	4.5	66
22	A Dual-Coupled LCC-Compensated IPT System With a Compact Magnetic Coupler. <i>IEEE Transactions on Power Electronics</i> , 2018, 33, 6391-6402.	5.4	112
23	Six-Plate Capacitive Coupler to Reduce Electric Field Emission in Large Air-Gap Capacitive Power Transfer. <i>IEEE Transactions on Power Electronics</i> , 2018, 33, 665-675.	5.4	128
24	A Double-Sided LC-Compensation Circuit for Loosely Coupled Capacitive Power Transfer. <i>IEEE Transactions on Power Electronics</i> , 2018, 33, 1633-1643.	5.4	166
25	Mitigating Power Fluctuations in Electric Ship Propulsion With Hybrid Energy Storage System: Design and Analysis. <i>IEEE Journal of Oceanic Engineering</i> , 2018, 43, 93-107.	2.1	96
26	Simultaneous Identification and Torque Control of Surface-Mount Permanent Magnet Synchronous Machines with Inverter Current and Voltage Constraints. , 2018, , .		0
27	Implementation and evaluation of real-time model predictive control for load fluctuations mitigation in all-electric ship propulsion systems. <i>Applied Energy</i> , 2018, 230, 62-77.	5.1	50
28	Sliding-mode and Lyapunov function-based control for battery/supercapacitor hybrid energy storage system used in electric vehicles. <i>Energy</i> , 2017, 122, 601-612.	4.5	188
29	Simultaneous Identification and Adaptive Torque Control of Permanent Magnet Synchronous Machines. <i>IEEE Transactions on Control Systems Technology</i> , 2017, 25, 1372-1383.	3.2	16
30	Autonomous Wideband Piezoelectric Energy Harvesting Utilizing a Resonant Inverter. <i>IEEE Transactions on Power Electronics</i> , 2017, 32, 6178-6187.	5.4	15
31	Theoretical Comparison of Energy Harvesting Methods for Electret-free Variable-Capacitance Devices. <i>Energy Harvesting and Systems</i> , 2016, 3, 245-262.	1.7	0
32	A Dynamic Charging System With Reduced Output Power Pulsation for Electric Vehicles. <i>IEEE Transactions on Industrial Electronics</i> , 2016, 63, 6580-6590.	5.2	208
33	Offline Identification of Induction Machine Parameters With Core Loss Estimation Using the Stator Current Locus. <i>IEEE Transactions on Energy Conversion</i> , 2016, 31, 1549-1558.	3.7	36
34	A 4-Plate Compact Capacitive Coupler Design and LCL-Compensated Topology for Capacitive Power Transfer in Electric Vehicle Charging Applications. <i>IEEE Transactions on Power Electronics</i> , 2016, , 1-1.	5.4	209
35	An Inductive and Capacitive Combined Wireless Power Transfer System With <i>LC</i>-Compensated Topology. <i>IEEE Transactions on Power Electronics</i> , 2016, 31, 8471-8482.	5.4	164
36	Space-Time Field Projection: Finite-Element Analysis Coupled Between Different Meshes and Different Time-Step Settings. <i>IEEE Transactions on Magnetics</i> , 2016, 52, 1-4.	1.2	1

#	ARTICLE	IF	CITATIONS
37	Resonant inverter design for stand-alone dynamic active piezoelectric energy harvesting. , 2015, , .		1
38	Steady-State Algorithms for Nonlinear Time-Periodic Magnetic Diffusion Problems Using Diagonally Implicit Runge-Kutta Methods. IEEE Transactions on Magnetics, 2015, 51, 1-12.	1.2	12
39	Output power and efficiency sensitivity to circuit parameter variations in double-sided LCC-compensated wireless power transfer system. , 2015, , .		49
40	Finite-Element-Based Computationally Efficient Scalable Electric Machine Model Suitable for Electrified Powertrain Simulation and Optimization. IEEE Transactions on Industry Applications, 2015, 51, 4435-4445.	3.3	23
41	Computationally Efficient 3-D Finite-Element-Based Dynamic Thermal Models of Electric Machines. IEEE Transactions on Transportation Electrification, 2015, 1, 138-149.	5.3	27
42	The optimization of a hybrid energy storage system at subzero temperatures: Energy management strategy design and battery heating requirement analysis. Applied Energy, 2015, 159, 576-588.	5.1	95
43	A Double-Sided <i>LCLC</i>-Compensated Capacitive Power Transfer System for Electric Vehicle Charging. IEEE Transactions on Power Electronics, 2015, 30, 6011-6014.	5.4	345
44	Simultaneous identification and torque regulation of permanent magnet synchronous machines via adaptive excitation decoupling. , 2015, , .		1
45	Optimization for a hybrid energy storage system in electric vehicles using dynamic programming approach. Applied Energy, 2015, 139, 151-162.	5.1	321
46	A comparison study of different semi-active hybrid energy storage system topologies for electric vehicles. Journal of Power Sources, 2015, 274, 400-411.	4.0	170
47	A Framework for Optimization of the Traction Motor Design Based on the Series-HEV System Level Goals. , 2014, , .		5
48	A stator current locus approach to induction machine parameter estimation. , 2014, , .		2
49	Multi-objective optimization of a semi-active battery/supercapacitor energy storage system for electric vehicles. Applied Energy, 2014, 135, 212-224.	5.1	275
50	Energy management strategies comparison for electric vehicles with hybrid energy storage system. Applied Energy, 2014, 134, 321-331.	5.1	305
51	Finite-element-based computationally-efficient electric machine model suitable for use in electrified vehicle powertrain design optimization. , 2014, , .		3
52	Magnetic and thermal scaling of electric machines. International Journal of Vehicle Design, 2013, 61, 219.	0.1	11
53	Steady-state finite element analysis of magnetic devices using a shooting-Newton-GMRES algorithm with Runge-Kutta integration. , 2012, , .		0
54	Harmonic balance FEA of synchronous machines using a traveling-wave airgap model. , 2011, , .		3

#	ARTICLE	IF	CITATIONS
55	Wideband energy harvesting for piezoelectric devices with linear resonant behavior. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 1294-1301.	1.7	33
56	Active stabilization of DC-DC converters with input LC filters via current-mode control and input voltage feedback. , 2010, , .		9
57	Wideband energy harvesting for resonant piezoelectric devices. , 2010, , .		6
58	Design and testing of a power electronic synthetic inductor. International Journal of Electronics, 2009, 96, 1249-1264.	0.9	5
59	A computationally efficient finite-element/analytical model for simulating electric machines with rotor movement. , 2009, , .		1
60	Power electronic circuitry for energy harvesting backpack. , 2009, , .		8
61	Active Piezoelectric Energy Harvesting: General Principle and Experimental Demonstration. Journal of Intelligent Material Systems and Structures, 2009, 20, 575-585.	1.4	103
62	Modeling and Control of Solid-Rotor Synchronous Reluctance Machines Based on Rotor Flux Dynamics. IEEE Transactions on Magnetics, 2008, 44, 4639-4647.	1.2	9
63	Control of High-Speed Solid-Rotor Synchronous Reluctance Motor/Generator for Flywheel-Based Uninterruptible Power Supplies. IEEE Transactions on Industrial Electronics, 2008, 55, 3038-3046.	5.2	74
64	Analysis and Reduction of Time Harmonic Rotor Loss in Solid-Rotor Synchronous Reluctance Drive. IEEE Transactions on Power Electronics, 2008, 23, 985-992.	5.4	23
65	Energy harvesting using AC machines with high effective pole count. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	3
66	Analysis of Permanent-Magnet Machines Using an Anisotropic Magnetostatic Continuum Formulation. IEEE Transactions on Magnetics, 2007, 43, 516-522.	1.2	3
67	Design and Testing of A Power Electronic Synthetic Inductor. , 2007, , .		1
68	Single crystal PMN-PT/Epoxy 1-3 composite for energy-harvesting application. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 631-638.	1.7	105
69	An Investigation of Energy Harvesting Using Electrostrictive Polymers. Materials Research Society Symposia Proceedings, 2005, 889, 1.	0.1	0
70	Investigation of electrostrictive polymers for energy harvesting. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2005, 52, 2411-2417.	1.7	104
71	Electrostrictive polymers for mechanical energy harvesting. , 2004, 5385, 17.		16
72	Damping as a result of piezoelectric energy harvesting. Journal of Sound and Vibration, 2004, 269, 991-1001.	2.1	273

#	ARTICLE	IF	CITATIONS
73	Energy Harvesting Using a Piezoelectric "Cymbal" Transducer in Dynamic Environment. Japanese Journal of Applied Physics, 2004, 43, 6178-6183.	0.8	308
74	Sensorless control of a thermoacoustic refrigerator. Journal of the Acoustical Society of America, 2004, 116, 288-293.	0.5	4
75	Optimized piezoelectric energy harvesting circuit using step-down converter in discontinuous conduction mode. IEEE Transactions on Power Electronics, 2003, 18, 696-703.	5.4	569
76	Adaptive piezoelectric energy harvesting circuit for wireless remote power supply. IEEE Transactions on Power Electronics, 2002, 17, 669-676.	5.4	1,064
77	High-speed synchronous reluctance machine with minimized rotor losses. IEEE Transactions on Industry Applications, 2000, 36, 531-539.	3.3	90
78	Speed-sensorless vector torque control of induction machines using a two-time-scale approach. IEEE Transactions on Industry Applications, 1998, 34, 169-177.	3.3	82