

Ka Wai Eric Cheng

List of Publications by Citations

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143
papers

3,040
citations

27
h-index

51
g-index

174
ext. papers

3,982
ext. citations

4
avg, IF

5.88
L-index

#	Paper	IF	Citations
143	Battery-Management System (BMS) and SOC Development for Electrical Vehicles. <i>IEEE Transactions on Vehicular Technology</i> , 2011 , 60, 76-88	6.8	309
142	Zero-Current Switching Switched-Capacitor Zero-Voltage-Gap Automatic Equalization System for Series Battery String. <i>IEEE Transactions on Power Electronics</i> , 2012 , 27, 3234-3242	7.2	239
141	A Step-Up Switched-Capacitor Multilevel Inverter With Self-Voltage Balancing. <i>IEEE Transactions on Industrial Electronics</i> , 2014 , 61, 6672-6680	8.9	227
140	Multi-Objective Optimization Design of In-Wheel Switched Reluctance Motors in Electric Vehicles. <i>IEEE Transactions on Industrial Electronics</i> , 2010 , 57, 2980-2987	8.9	194
139	Optimization and Evaluation of Torque-Sharing Functions for Torque Ripple Minimization in Switched Reluctance Motor Drives. <i>IEEE Transactions on Power Electronics</i> , 2009 , 24, 2076-2090	7.2	185
138	A Cascaded Multilevel Inverter Based on Switched-Capacitor for High-Frequency AC Power Distribution System. <i>IEEE Transactions on Power Electronics</i> , 2014 , 29, 4219-4230	7.2	149
137	Quadratic boost converter with low buffer capacitor stress. <i>IET Power Electronics</i> , 2014 , 7, 1162-1170	2.2	108
136	Optimal Control Method of Motoring Operation for SRM Drives in Electric Vehicles. <i>IEEE Transactions on Vehicular Technology</i> , 2010 , 59, 1191-1204	6.8	76
135	A High Step-up PWM DC-DC Converter With Coupled-Inductor and Resonant Switched-Capacitor. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 7739-7749	7.2	63
134	Multi-Input Switched-Capacitor Multilevel Inverter for High-Frequency AC Power Distribution. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 5937-5948	7.2	50
133	Multi-input voltage-summation converter based on switched-capacitor. <i>IET Power Electronics</i> , 2013 , 6, 1909-1916	2.2	50
132	2011 ,		49
131	A Family of Single-Stage Switched-Capacitor/Inductor PWM Converters. <i>IEEE Transactions on Power Electronics</i> , 2013 , 28, 5196-5205	7.2	47
130	Systematic Approach to High-Power and Energy-Efficient Industrial Induction Cooker System: Circuit Design, Control Strategy, and Prototype Evaluation. <i>IEEE Transactions on Power Electronics</i> , 2011 , 26, 3754-3765	7.2	44
129	A Family of Dual-Phase-Combined Zero-Current Switching Switched-Capacitor Converters. <i>IEEE Transactions on Power Electronics</i> , 2014 , 29, 4209-4218	7.2	43
128	Design of a New Enhanced Torque In-Wheel Switched Reluctance Motor With Divided Teeth for Electric Vehicles. <i>IEEE Transactions on Magnetics</i> , 2017 , 53, 1-4	2	40
127	Analysis and Design of Zero-Current Switching Switched-Capacitor Cell Balancing Circuit for Series-Connected Battery/Supercapacitor. <i>IEEE Transactions on Vehicular Technology</i> , 2018 , 67, 948-955	6.8	39

126	Active Suspension System Based on Linear Switched Reluctance Actuator and Control Schemes. <i>IEEE Transactions on Vehicular Technology</i> , 2013 , 62, 562-572	6.8	35
125	Level-Shifting Multiple-Input Switched-Capacitor Voltage Copier. <i>IEEE Transactions on Power Electronics</i> , 2012 , 27, 828-837	7.2	33
124	Switched Reluctance Generators with Hybrid Magnetic Paths for Wind Power Generation. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 3863-3866	2	32
123	Longitudinal and Transversal End-Effects Analysis of Linear Switched Reluctance Motor. <i>IEEE Transactions on Magnetics</i> , 2011 , 47, 3979-3982	2	32
122	Static performance and parasitic analysis of tapped-inductor converters. <i>IET Power Electronics</i> , 2014 , 7, 366-375	2.2	31
121	An Automatic Switched-Capacitor Cell Balancing Circuit for Series-Connected Battery Strings. <i>Energies</i> , 2016 , 9, 138	3.1	30
120	. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 68, 4827-4837	8.9	29
119	Deformation and Noise Mitigation for the Linear Switched Reluctance Motor With Skewed Teeth Structure. <i>IEEE Transactions on Magnetics</i> , 2014 , 50, 1-4	2	28
118	Family of Multiport Switched-Capacitor Multilevel Inverters for High-Frequency AC Power Distribution. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 4407-4422	7.2	27
117	Generalized Topology of a Hybrid Switched- Capacitor Multilevel Inverter for High- Frequency AC Power Distribution. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2020 , 8, 2886-2897 ^{5.6}	5.6	27
116	Duality approach to the study of switched-inductor power converters and its higher-order variations. <i>IET Power Electronics</i> , 2015 , 8, 489-496	2.2	24
115	Analysis and Optimization of Switched Capacitor Power Conversion Circuits With Parasitic Resistances and Inductances. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 2018-2028	7.2	23
114	Implementation of a Voltage Multiplier Integrated HID Ballast Circuit With Dimming Control for Automotive Application. <i>IEEE Transactions on Industrial Electronics</i> , 2009 , 56, 2479-2492	8.9	23
113	. <i>IEEE Transactions on Industrial Electronics</i> , 2014 , 61, 3232-3247	8.9	21
112	. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2019 , 66, 2803-2812	3.9	20
111	Single-switch single-inductor multi-output pulse width modulation converters based on optimised switched-capacitor. <i>IET Power Electronics</i> , 2015 , 8, 2168-2175	2.2	20
110	Sensorless position estimation of switched reluctance motor at startup using quadratic polynomial regression. <i>IET Electric Power Applications</i> , 2013 , 7, 618-626	1.8	20
109	Series-Parallel Switched-Capacitor Balancing Circuit for Hybrid Source Package. <i>IEEE Access</i> , 2018 , 6, 34254-34261	3.5	19

108	Predictive Control of Power Electronics Converters in Renewable Energy Systems. <i>Energies</i> , 2017 , 10, 515	3.1	19
107	Model, Analysis, and Application of Tubular Linear Switched Reluctance Actuator for Linear Compressors. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 9863-9872	8.9	18
106	Calculations of Eddy Current, Fluid, and Thermal Fields in an Air Insulated Bus Duct System. <i>IEEE Transactions on Magnetics</i> , 2007 , 43, 1433-1436	2	18
105	Adaptive sliding mode technique-based electromagnetic suspension system with linear switched reluctance actuator. <i>IET Electric Power Applications</i> , 2015 , 9, 50-59	1.8	17
104	Trigonometry-Based Numerical Method to Compute Nonlinear Magnetic Characteristics in Switched Reluctance Motors. <i>IEEE Transactions on Magnetics</i> , 2007 , 43, 1845-1848	2	17
103	Design and Analysis of a New Enhanced Torque Hybrid Switched Reluctance Motor. <i>IEEE Transactions on Energy Conversion</i> , 2018 , 33, 1965-1977	5.4	17
102	Single-Switch Multichannel Current-Balancing LED Drive Circuits Based on Optimized SC Techniques. <i>IEEE Transactions on Industrial Electronics</i> , 2015 , 62, 4761-4768	8.9	16
101	Online and Offline Rotary Regression Analysis of Torque Estimator for Switched Reluctance Motor Drives. <i>IEEE Transactions on Energy Conversion</i> , 2007 , 22, 810-818	5.4	16
100	Review of charge equalization schemes for Li-ion battery and super-capacitor energy storage systems 2014 ,		15
99	Direct Instantaneous Force Control With Improved Efficiency for Four-Quadrant Operation of Linear Switched Reluctance Actuator in Active Suspension System. <i>IEEE Transactions on Vehicular Technology</i> , 2012 , 61, 1567-1576	6.8	14
98	Control and Integrated Half Bridge to Winding Circuit Development for Switched Reluctance Motors. <i>IEEE Transactions on Industrial Informatics</i> , 2014 , 10, 109-116	11.9	14
97	Direct Voltage Control for Grid Synchronization of Doubly-fed Induction Generators. <i>Electric Power Components and Systems</i> , 2008 , 36, 960-976	1	14
96	A hybrid multilevel inverter employing series-parallel switched-capacitor unit 2017 ,		13
95	Design and Control of a Decoupled Rotary-Linear Switched Reluctance Motor. <i>IEEE Transactions on Energy Conversion</i> , 2018 , 33, 1363-1371	5.4	13
94	Multicoils Design for Induction Cookers With Applying Switched Exciting Method. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 4503-4506	2	13
93	A Position Stepping Method for Predicting Performances of Switched Reluctance Motor Drives. <i>IEEE Transactions on Energy Conversion</i> , 2007 , 22, 839-847	5.4	13
92	Study on Magnetic Materials Used in Power Transformer and Inductor 2006 ,		13
91	Study of art of automotive active suspensions 2011 ,		12

90	Temperature and safety profiles of needle-warming techniques in acupuncture and moxibustion. <i>Evidence-based Complementary and Alternative Medicine</i> , 2012 , 2012, 168393	2.3	12
89	Multi-Area Self-Adaptive Pricing Control in Smart City With EV User Participation. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2018 , 19, 2156-2164	6.1	11
88	Non-Equal Voltage Cell Balancing for Battery and Super-Capacitor Source Package Management System Using Tapped Inductor Techniques. <i>Energies</i> , 2018 , 11, 1037	3.1	11
87	New power sharing scheme with correlation control for input-parallel/output-series-based interleaved resonant inverters. <i>IET Power Electronics</i> , 2014 , 7, 1266-1277	2.2	11
86	Robust controller design of LCLC resonant inverter for high-frequency power distribution system. <i>IET Power Electronics</i> , 2013 , 6, 652-662	2.2	11
85	An Efficient Tabu Search Algorithm for Robust Solutions of Electromagnetic Design Problems. <i>IEEE Transactions on Magnetics</i> , 2008 , 44, 1042-1045	2	11
84	Distribution System Planning Considering Stochastic EV Penetration and V2G Behavior. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2020 , 21, 149-158	6.1	11
83	Cost-Effective and Compact Multistring LED Driver Based on a Three-Coil Wireless Power Transfer System. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 7156-7160	7.2	10
82	Fuzzy Sliding Mode Wheel Slip Ratio Control for Smart Vehicle Anti-Lock Braking System. <i>Energies</i> , 2019 , 12, 2501	3.1	10
81	Thermal Impacts of Electromagnetic Proximity Effects in Induction Cooking System With Distributed Planar Multicoils. <i>IEEE Transactions on Magnetics</i> , 2011 , 47, 3212-3215	2	10
80	A Novel Approach to the Analysis of the Axial-Flux Permanent-Magnet Generator With Coreless Stator Supplying a Rectifier Load. <i>IEEE Transactions on Magnetics</i> , 2011 , 47, 2391-2394	2	10
79	Research on a novel switched reluctance generator for wind power generation 2011 ,		10
78	Direct Torque Control of a Doubly-fed Induction Generator with Space Vector Modulation. <i>Electric Power Components and Systems</i> , 2008 , 36, 1337-1350	1	10
77	Simulation of Switched Reluctance Motor Based on a Combination of Circuit-oriented and Signal-oriented Approaches Using Matlab/SimPowerSystems. <i>Electric Power Components and Systems</i> , 2007 , 35, 205-219	1	10
76	Improvement of Power Factor in Switched Reluctance Motor Drives Through Optimizing the Switching Angles. <i>Electric Power Components and Systems</i> , 2004 , 32, 1225-1238	1	10
75	Self-Balanced Switched-Capacitor Thirteen-Level Inverters With Reduced Capacitors Count. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 1-1	8.9	10
74	Floating solar cell power generation, power flow design and its connection and distribution 2017 ,		8
73	Investigation of multiple output operation for switched-capacitor resonant converters. <i>International Journal of Circuit Theory and Applications</i> , 2002 , 30, 411-423	2	8

72	A seven level switched capacitor multilevel inverter with asymmetric input sources for microgrids 2017 ,		7
71	Wireless power transfer technology for electric iron based on multi-coils induction heating design. <i>IET Power Electronics</i> , 2019 , 12, 2566-2577	2.2	7
70	Centralized Regulation Scheme for a Parallel-Mode Switched-Capacitor Converter System With Simple Unit Commitment. <i>IEEE Transactions on Industrial Electronics</i> , 2017 , 64, 6149-6158	8.9	6
69	A novel switched-capacitor multilevel inverter offering modularity in design 2018 ,		6
68	Design and application of intelligent control system for greenhouse environment 2017 ,		6
67	Multi-Port Zero-Current Switching Switched-Capacitor Converters for Battery Management Applications. <i>Energies</i> , 2018 , 11, 1934	3.1	6
66	A Series of New Control Methods for Single-Phase Z-Source Inverters and the Optimized Operation. <i>IEEE Access</i> , 2019 , 7, 113786-113800	3.5	5
65	Design of a contactless power charger for a functional jacket. <i>International Journal of Circuit Theory and Applications</i> , 2013 , 41, 669-681	2	5
64	Estimation of Inductance Derivative for Force Control of Linear Switched Reluctance Actuator. <i>IEEE Transactions on Magnetics</i> , 2014 , 50, 1-4	2	5
63	Hybrid energy storage system and associated converters examination for DC distribution 2013 ,		5
62	Study on the performance and control of linear compressor for household refrigerators 2013 ,		5
61	Stability Improvement of Dynamic EV Wireless Charging System with Receiver-Side Control Considering Coupling Disturbance. <i>Electronics (Switzerland)</i> , 2021 , 10, 1639	2.6	5
60	Remote Hardware Controlled Experiment Virtual Laboratory for Undergraduate Teaching in Power Electronics. <i>Education Sciences</i> , 2019 , 9, 222	2.2	4
59	. <i>IEEE Access</i> , 2019 , 7, 134514-134524	3.5	4
58	2013 ,		4
57	A Vertical Flux-Switching Permanent Magnet Based Oscillating Wave Power Generator with Energy Storage. <i>Energies</i> , 2017 , 10, 887	3.1	4
56	The Thermoelectric Analysis of Different Heat Flux Conduction Materials for Power Generation Board. <i>Energies</i> , 2017 , 10, 1781	3.1	4
55	Analysis and design of a cost effective converter for switched reluctance motor drives using component sharing 2011 ,		4

54	A Polymer-Bonded Magnetic Core for High-Frequency Converters. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 4328-4331	2	4
53	Hybrid Energy Storage System with Vehicle Body Integrated Super-Capacitor and Li-Ion Battery: Model, Design and Implementation, for Distributed Energy Storage. <i>Energies</i> , 2021 , 14, 6553	3.1	4
52	An Improved and Integrated Design of Segmented Dynamic Wireless Power Transfer for Electric Vehicles. <i>Energies</i> , 2021 , 14, 1975	3.1	4
51	. <i>IEEE Transactions on Energy Conversion</i> , 2021 , 36, 1081-1089	5.4	4
50	A Special Magnetic Coupler Structure for Three-coil Wireless Power Transfer: Analysis, Design and Experimental Verification. <i>IEEE Transactions on Magnetics</i> , 2021 , 1-1	2	4
49	A Valley-Fill Driver With Current Balancing for Parallel LED Strings Used for High-Frequency AC Power Distribution of Vehicle. <i>IEEE Transactions on Transportation Electrification</i> , 2017 , 3, 180-190	7.6	3
48	Indirect Adaptive and Interconnection and Damping Assignment Passivity-Based Controller for Constant Power Control in Steady-State of Automotive HID Headlight Electronic Ballast. <i>Journal of Circuits, Systems and Computers</i> , 2015 , 24, 1550030	0.9	3
47	Formulation of buffer energy and experimental results of energy factor of DCDC converters. <i>International Journal of Circuit Theory and Applications</i> , 2013 , 41, 779-791	2	3
46	Modeling of basic DC-DC converters 2017 ,		3
45	Loss analysis of hybrid battery-supercapacitor energy storage system in EVs 2017 ,		3
44	A Switched Capacitor Based AC/DC Resonant Converter for High Frequency AC Power Generation. <i>Energies</i> , 2015 , 8, 10842-10860	3.1	3
43	Design consideration of C-core switched reluctance generators for wind energy 2011 ,		3
42	Polymer-bonded NiZn ferrite magnetic cores mixed with titanium (IV) isopropoxide (C ₁₂ H ₂₈ O ₄ Ti). <i>Journal of Applied Physics</i> , 2011 , 109, 07A514	2.5	3
41	A review of international charging coupler standards and its availability in Hong Kong 2011 ,		3
40	Design and analysis of an electronic ballast with a secondary DC output. <i>International Journal of Circuit Theory and Applications</i> , 2008 , 36, 883-898	2	3
39	Modeling of solenoidal transformer for the calculation of leakage inductance using eddy-current reaction field. <i>IEEE Transactions on Magnetics</i> , 2005 , 41, 1996-1999	2	3
38	A Fast Self-positioning-based Optimal Frequency Control for Inductive Wireless Power Transfer Systems without Communication. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1	8.9	3
37	Design of flat magnetic core for inductively coupled coils in high efficiency wireless power transfer application 2017 ,		2

36	Characterization and modeling of copper foil conductor for high frequency power distribution 2015		2
35	An Energy-Saving Scheme of Variable Voltage Control for Three-Phase Induction Motor Drive Systems 2006 ,		2
34	Examination of T8-T5 Electronic Ballast Adaptor 2006 ,		2
33	Core Stress Analysis of Amorphous Alloy Transformer for Rail Transit under Different Working Conditions. <i>Energies</i> , 2021 , 14, 164	3.1	2
32	Forecast of urban EV charging load and smart control concerning uncertainties 2016 ,		2
31	Energy management system for mobility and smart city 2016 ,		2
30	Performance prediction of light electric vehicles powered by body-integrated super-capacitors 2016 ,		2
29	Four-Wheel Anti-Lock Braking System With Robust Adaptation Under Complex Road Conditions. <i>IEEE Transactions on Vehicular Technology</i> , 2021 , 70, 292-302	6.8	2
28	A Modular Concept Development for Resonant Soft-Charging Step-Up Switched-Capacitor Multilevel Inverter for High-Frequency AC Distribution and Applications. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2021 , 9, 5975-5985	5.6	2
27	A Supercapacitor-Based Method to Mitigate Overvoltage and Recycle the Energy of Pantograph Arcing in the High Speed Railway. <i>Energies</i> , 2019 , 12, 1214	3.1	1
26	Design and Control of a Permanent Magnet RotLin Motor for New Foldable Photovoltaic Units. <i>Energies</i> , 2019 , 12, 1983	3.1	1
25	Theoretical modelling of the storage energy envelope of high frequency AC reactive components to predict chaos boundary. <i>IET Power Electronics</i> , 2015 , 8, 938-946	2.2	1
24	Current-source mode switched-capacitor power converters with improved current gain capability. <i>IET Power Electronics</i> , 2020 , 13, 116-126	2.2	1
23	Zero Current Switching Switched-Capacitors Balancing Circuit for Energy Storage Cell Equalization and Its Associated Hybrid Circuit with Classical Buck-Boost. <i>Energies</i> , 2019 , 12, 2726	3.1	1
22	Zero emission solar-powered boat development 2017 ,		1
21	Experimental study on the electrical characteristic of a GaN hybrid drain-embedded gate injection transistor (HD-GIT) 2017 ,		1
20	A switched-capacitor step-up inverter for bidirectional wireless charging applications in electric microcar 2017 ,		1
19	Comparison study of rare-earth-free motors with permanent magnet motors in EV applications 2017 ,		1

18	A Topology of Step-Down Resonant Switched-Capacitor-Based ACDC Converter for High-Frequency AC Distribution. <i>Journal of Circuits, Systems and Computers</i> , 2015 , 24, 1550154	0.9	1
17	A controller for linear compressors propelled by linear switched reluctance actuators 2013 ,		1
16	Prediction of charging and discharging performances of supercapacitor modules 2013 ,		1
15	Design optimization of a multi-modular linear switched reluctance actuator 2013 ,		1
14	Business opportunities of charging system and electric vehicle 2011 ,		1
13	ABS Control of Electric Vehicle on Various Road Conditions 2011 ,		1
12	Investigation on parameters of automotive electromagnetic active suspensions 2011 ,		1
11	Direct Torque Control of Doubly Fed Induction Generators Connected to Grids with Unbalanced Voltage. <i>Electric Power Components and Systems</i> , 2009 , 37, 894-913	1	1
10	Optimization of Ferrites Structure by Using a New Core-Less Design Algorithm for Electric Vehicle Wireless Power Transfer. <i>Energies</i> , 2021 , 14, 2590	3.1	1
9	Circuit Topology Analysis for LED Lighting and its Formulation Development. <i>Energies</i> , 2019 , 12, 4203	3.1	1
8	Design, Analysis and Application of Single-Wheel Test Bench for All-Electric Antilock Braking System in Electric Vehicles. <i>Energies</i> , 2021 , 14, 1294	3.1	1
7	Current Source Mode Bidirectional DC/DC Converter with Multiple-level Output Conversion Ratios Based on the Hybrid PWM Control of the Switched-Capacitor Structure. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2021 , 1-1	5.6	0
6	Design, Analysis and Implementation of the Tapped-Inductor Boost Current Converter on Current Based System. <i>Energies</i> , 2021 , 14, 888	3.1	0
5	Analysis, Design, and Validation of a decoupled Double-receiver Wireless Power Transfer System with Constant Voltage Outputs for Industrial Power Supplies. <i>IEEE Transactions on Industrial Informatics</i> , 2022 , 1-1	11.9	0
4	Stability Improvement and Overshoot Damping of SS-Compensated EV Wireless Charging Systems with User-End Buck Converters. <i>IEEE Transactions on Vehicular Technology</i> , 2022 , 1-1	6.8	0
3	Force and Velocity Ripple Reduction of the New Linear Motor. <i>IEEE Access</i> , 2021 , 1-1	3.5	
2	Quasi-Z-Source -Fed Switched-Capacitor Multilevel Inverters without Inrush Charging Current. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1	8.9	
1	Topology and Formation of Current Source Step Down Resonant Switched Inductor Converters. <i>Energies</i> , 2022 , 15, 1697	3.1	

