

Ka Wai Eric Cheng

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	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
142	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
141	Quasi-Z-Source -Fed Switched-Capacitor Multilevel Inverters without Inrush Charging Current. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1	8.9	
140	Topology and Formation of Current Source Step Down Resonant Switched Inductor Converters. <i>Energies</i> , 2022 , 15, 1697	3.1	
139	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
138	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
137	Core Stress Analysis of Amorphous Alloy Transformer for Rail Transit under Different Working Conditions. <i>Energies</i> , 2021 , 14, 164	3.1	2
136	Force and Velocity Ripple Reduction of the New Linear Motor. <i>IEEE Access</i> , 2021 , 1-1	3.5	
135	An Improved and Integrated Design of Segmented Dynamic Wireless Power Transfer for Electric Vehicles. <i>Energies</i> , 2021 , 14, 1975	3.1	4
134	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
133	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
132	. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 68, 4827-4837	8.9	29
131	. <i>IEEE Transactions on Energy Conversion</i> , 2021 , 36, 1081-1089	5.4	4
130	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
129	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
128	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
127	Self-Balanced Switched-Capacitor Thirteen-Level Inverters With Reduced Capacitors Count. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 1-1	8.9	10

126	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
125	Design, Analysis and Implementation of the Tapped-Inductor Boost Current Converter on Current Based System. <i>Energies</i> , 2021 , 14, 888	3.1	0
124	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
123	Current-source mode switched-capacitor power converters with improved current gain capability. <i>IET Power Electronics</i> , 2020 , 13, 116-126	2.2	1
122	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
121	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	27
120	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
119	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
118	Design and Control of a Permanent Magnet RotLin Motor for New Foldable Photovoltaic Units. <i>Energies</i> , 2019 , 12, 1983	3.1	1
117	. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2019 , 66, 2803-2812	3.9	20
116	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
115	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
114	Fuzzy Sliding Mode Wheel Slip Ratio Control for Smart Vehicle Anti-Lock Braking System. <i>Energies</i> , 2019 , 12, 2501	3.1	10
113	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
112	Remote Hardware Controlled Experiment Virtual Laboratory for Undergraduate Teaching in Power Electronics. <i>Education Sciences</i> , 2019 , 9, 222	2.2	4
111	. <i>IEEE Access</i> , 2019 , 7, 134514-134524	3.5	4
110	Circuit Topology Analysis for LED Lighting and its Formulation Development. <i>Energies</i> , 2019 , 12, 4203	3.1	1
109	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

108	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
107	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
106	A novel switched-capacitor multilevel inverter offering modularity in design 2018 ,		6
105	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
104	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
103	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
102	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
101	Series-Parallel Switched-Capacitor Balancing Circuit for Hybrid Source Package. <i>IEEE Access</i> , 2018 , 6, 34254-34261	3.5	19
100	Multi-Port Zero-Current Switching Switched-Capacitor Converters for Battery Management Applications. <i>Energies</i> , 2018 , 11, 1934	3.1	6
99	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
98	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
97	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
96	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
95	A hybrid multilevel inverter employing series-parallel switched-capacitor unit 2017 ,		13
94	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
93	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
92	Zero emission solar-powered boat development 2017 ,		1
91	Experimental study on the electrical characteristic of a GaN hybrid drain-embedded gate injection transistor (HD-GIT) 2017 ,		1

90	Modeling of basic DC-DC converters 2017 ,		3
89	Floating solar cell power generation, power flow design and its connection and distribution 2017 ,		8
88	Design and application of intelligent control system for greenhouse environment 2017 ,		6
87	Design of flat magnetic core for inductively coupled coils in high efficiency wireless power transfer application 2017 ,		2
86	A seven level switched capacitor multilevel inverter with asymmetric input sources for microgrids 2017 ,		7
85	A switched-capacitor step-up inverter for bidirectional wireless charging applications in electric microcar 2017 ,		1
84	Comparison study of rare-earth-free motors with permanent magnet motors in EV applications 2017 ,		1
83	Loss analysis of hybrid battery-supercapacitor energy storage system in EVs 2017 ,		3
82	Predictive Control of Power Electronics Converters in Renewable Energy Systems. <i>Energies</i> , 2017 , 10, 515	3.1	19
81	A Vertical Flux-Switching Permanent Magnet Based Oscillating Wave Power Generator with Energy Storage. <i>Energies</i> , 2017 , 10, 887	3.1	4
80	The Thermoelectric Analysis of Different Heat Flux Conduction Materials for Power Generation Board. <i>Energies</i> , 2017 , 10, 1781	3.1	4
79	An Automatic Switched-Capacitor Cell Balancing Circuit for Series-Connected Battery Strings. <i>Energies</i> , 2016 , 9, 138	3.1	30
78	Forecast of urban EV charging load and smart control concerning uncertainties 2016 ,		2
77	Energy management system for mobility and smart city 2016 ,		2
76	Performance prediction of light electric vehicles powered by body-integrated super-capacitors 2016 ,		2
75	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
74	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
73	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

72	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
71	A Topology of Step-Down Resonant Switched-Capacitor-Based AC/DC Converter for High-Frequency AC Distribution. <i>Journal of Circuits, Systems and Computers</i> , 2015 , 24, 1550154	0.9	1
70	A Switched Capacitor Based AC/DC Resonant Converter for High Frequency AC Power Generation. <i>Energies</i> , 2015 , 8, 10842-10860	3.1	3
69	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
68	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
67	Characterization and modeling of copper foil conductor for high frequency power distribution 2015		2
66	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
65	Static performance and parasitic analysis of tapped-inductor converters. <i>IET Power Electronics</i> , 2014 , 7, 366-375	2.2	31
64	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
63	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
62	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
61	. <i>IEEE Transactions on Industrial Electronics</i> , 2014 , 61, 3232-3247	8.9	21
60	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
59	Review of charge equalization schemes for Li-ion battery and super-capacitor energy storage systems 2014 ,		15
58	Quadratic boost converter with low buffer capacitor stress. <i>IET Power Electronics</i> , 2014 , 7, 1162-1170	2.2	108
57	Estimation of Inductance Derivative for Force Control of Linear Switched Reluctance Actuator. <i>IEEE Transactions on Magnetics</i> , 2014 , 50, 1-4	2	5
56	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
55	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

54	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
53	Fbased 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
52	Multi-input voltage-summation converter based on switched-capacitor. <i>IET Power Electronics</i> , 2013 , 6, 1909-1916	2.2	50
51	2013 ,		4
50	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
49	A Family of Single-Stage Switched-CapacitorInductor PWM Converters. <i>IEEE Transactions on Power Electronics</i> , 2013 , 28, 5196-5205	7.2	47
48	A controller for linear compressors propelled by linear switched reluctance actuators 2013 ,		1
47	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
46	Prediction of charging and discharging performances of supercapacitor modules 2013 ,		1
45	Hybrid energy storage system and associated converters examination for DC distribution 2013 ,		5
44	Design optimization of a multi-modular linear switched reluctance actuator 2013 ,		1
43	Study on the performance and control of linear compressor for household refrigerators 2013 ,		5
42	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
41	Multicoils Design for Induction Cookers With Applying Switched Exciting Method. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 4503-4506	2	13
40	Switched Reluctance Generators with Hybrid Magnetic Paths for Wind Power Generation. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 3863-3866	2	32
39	Level-Shifting Multiple-Input Switched-Capacitor Voltage Copier. <i>IEEE Transactions on Power Electronics</i> , 2012 , 27, 828-837	7.2	33
38	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
37	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

36	A Polymer-Bonded Magnetic Core for High-Frequency Converters. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 4328-4331	2	4
35	2011 ,		49
34	Design consideration of C-core switched reluctance generators for wind energy 2011 ,		3
33	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
32	Analysis and design of a cost effective converter for switched reluctance motor drives using component sharing 2011 ,		4
31	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
30	Battery-Management System (BMS) and SOC Development for Electrical Vehicles. <i>IEEE Transactions on Vehicular Technology</i> , 2011 , 60, 76-88	6.8	309
29	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
28	Longitudinal and Transversal End-Effects Analysis of Linear Switched Reluctance Motor. <i>IEEE Transactions on Magnetics</i> , 2011 , 47, 3979-3982	2	32
27	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
26	Business opportunities of charging system and electric vehicle 2011 ,		1
25	Research on a novel switched reluctance generator for wind power generation 2011 ,		10
24	ABS Control of Electric Vehicle on Various Road Conditions 2011 ,		1
23	Study of art of automotive active suspensions 2011 ,		12
22	Investigation on parameters of automotive electromagnetic active suspensions 2011 ,		1
21	A review of international charging coupler standards and its availability in Hong Kong 2011 ,		3
20	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
19	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

18	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
17	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
16	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
15	An Efficient Tabu Search Algorithm for Robust Solutions of Electromagnetic Design Problems. <i>IEEE Transactions on Magnetics</i> , 2008 , 44, 1042-1045	2	11
14	Direct Voltage Control for Grid Synchronization of Doubly-fed Induction Generators. <i>Electric Power Components and Systems</i> , 2008 , 36, 960-976	1	14
13	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
12	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
11	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
10	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
9	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
8	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
7	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
6	Study on Magnetic Materials Used in Power Transformer and Inductor 2006 ,		13
5	An Energy-Saving Scheme of Variable Voltage Control for Three-Phase Induction Motor Drive Systems 2006 ,		2
4	Examination of T8-T5 Electronic Ballast Adaptor 2006 ,		2
3	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
2	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
1	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

