

Siu-Chung Wong

List of Publications by Year in descending order

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153
papers

4,946
citations

94381

37
h-index

102432

66
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153
all docs

153
docs citations

153
times ranked

2620
citing authors

#	ARTICLE	IF	CITATIONS
1	Design for Efficiency Optimization and Voltage Controllability of Series-Compensated Inductive Power Transfer Systems. IEEE Transactions on Power Electronics, 2014, 29, 191-200.	5.4	465
2	Hybrid IPT Topologies With Constant Current or Constant Voltage Output for Battery Charging Applications. IEEE Transactions on Power Electronics, 2015, 30, 6329-6337.	5.4	342
3	Analysis and Comparison of Secondary Series- and Parallel-Compensated Inductive Power Transfer Systems Operating for Optimal Efficiency and Load-Independent Voltage-Transfer Ratio. IEEE Transactions on Power Electronics, 2014, 29, 2979-2990.	5.4	340
4	Analysis, Design, and Control of a Transcutaneous Power Regulator for Artificial Hearts. IEEE Transactions on Biomedical Circuits and Systems, 2009, 3, 23-31.	2.7	210
5	Higher Order Compensation for Inductive-Power-Transfer Converters With Constant-Voltage or Constant-Current Output Combating Transformer Parameter Constraints. IEEE Transactions on Power Electronics, 2017, 32, 394-405.	5.4	169
6	Control Design for Optimizing Efficiency in Inductive Power Transfer Systems. IEEE Transactions on Power Electronics, 2018, 33, 4523-4534.	5.4	160
7	Analysis and Control of Series/Series-Parallel Compensated Resonant Converter for Contactless Power Transfer. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 124-136.	3.7	147
8	On lossless switched-capacitor power converters. IEEE Transactions on Power Electronics, 1995, 10, 286-291.	5.4	127
9	Design of a Single-Stage Inductive-Power-Transfer Converter for Efficient EV Battery Charging. IEEE Transactions on Vehicular Technology, 2017, 66, 5808-5821.	3.9	120
10	Noncascading Structure for Electronic Ballast Design for Multiple LED Lamps With Independent Brightness Control. IEEE Transactions on Power Electronics, 2010, 25, 331-340.	5.4	114
11	Resonance-Assisted Buck Converter for Offline Driving of Power LED Replacement Lamps. IEEE Transactions on Power Electronics, 2011, 26, 532-540.	5.4	110
12	Load-Independent Duality of Current and Voltage Outputs of a Series- or Parallel-Compensated Inductive Power Transfer Converter With Optimized Efficiency. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 137-146.	3.7	109
13	An IPT Battery Charger With Near Unity Power Factor and Load-Independent Constant Output Combating Design Constraints of Input Voltage and Transformer Parameters. IEEE Transactions on Power Electronics, 2019, 34, 7719-7727.	5.4	92
14	An Optimized Track Length in Roadway Inductive Power Transfer Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 598-608.	3.7	88
15	A Family of Hybrid IPT Topologies With Near Load-Independent Output and High Tolerance to Pad Misalignment. IEEE Transactions on Power Electronics, 2020, 35, 6867-6877.	5.4	84
16	Analysis of Output Current Characteristics for Higher Order Primary Compensation in Inductive Power Transfer Systems. IEEE Transactions on Power Electronics, 2018, 33, 6807-6821.	5.4	83
17	An Improved <i>LCLC</i> Current-Source-Output Multistring LED Driver With Capacitive Current Balancing. IEEE Transactions on Power Electronics, 2015, 30, 5783-5791.	5.4	78
18	A Single-Stage Inductive-Power-Transfer Converter for Constant-Power and Maximum-Efficiency Battery Charging. IEEE Transactions on Power Electronics, 2020, 35, 8973-8984.	5.4	77

#	ARTICLE	IF	CITATIONS
19	Design of a Current-Source-Output Inductive Power Transfer LED Lighting System. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 306-314.	3.7	72
20	An Inductive-Power-Transfer Converter With High Efficiency Throughout Battery-Charging Process. IEEE Transactions on Power Electronics, 2019, 34, 10245-10255.	5.4	70
21	Load-Independent Voltage and Current Transfer Characteristics of High-Order Resonant Network in IPT System. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 422-436.	3.7	70
22	Precise Characteristics Analysis of Series/Series-Parallel Compensated Contactless Resonant Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 101-110.	3.7	68
23	The method of double averaging: an approach for modeling power-factor-correction switching converters. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2006, 53, 454-462.	0.1	64
24	Fast-scale bifurcation in single-stage PFC power supplies operating with DCM boost stage and CCM forward stage. International Journal of Circuit Theory and Applications, 2006, 34, 341-355.	1.3	64
25	A Family of Exponential Step-Down Switched-Capacitor Converters and Their Applications in Two-Stage Converters. IEEE Transactions on Power Electronics, 2014, 29, 1870-1880.	5.4	59
26	A Unified Approach for the Derivation of Robust Control for Boost PFC Converters. IEEE Transactions on Power Electronics, 2009, 24, 2531-2544.	5.4	53
27	Wide Design Range of Constant Output Current Using Double-Sided LC Compensation Circuits for Inductive-Power-Transfer Applications. IEEE Transactions on Power Electronics, 2019, 34, 2364-2374.	5.4	50
28	Low-Frequency Hopf Bifurcation and Its Effects on Stability Margin in Three-Phase PFC Power Supplies Connected to Non-Ideal Power Grid. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 3328-3340.	3.5	49
29	Catastrophic Bifurcation in Three-Phase Voltage-Source Converters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 1062-1071.	3.5	49
30	Self-Oscillating Resonant Converter With Contactless Power Transfer and Integrated Current Sensing Transformer. IEEE Transactions on Power Electronics, 2017, 32, 4839-4851.	5.4	49
31	Single-Phase LED Drivers With Minimal Power Processing, Constant Output Current, Input Power Factor Correction, and Without Electrolytic Capacitor. IEEE Transactions on Power Electronics, 2018, 33, 6159-6170.	5.4	48
32	Color Control System for RGB LED Light Sources Using Junction Temperature Measurement. , 2007, , .		46
33	Control and Modulation of Bidirectional Single-Phase AC-DC Three-Phase-Leg SPWM Converters With Active Power Decoupling and Minimal Storage Capacitance. IEEE Transactions on Power Electronics, 2016, 31, 4226-4240.	5.4	46
34	Nonlinear Behavior and Instability in a Three-Phase Boost Rectifier Connected to a Nonideal Power Grid With an Interacting Load. IEEE Transactions on Power Electronics, 2013, 28, 3255-3265.	5.4	45
35	Temperature Measurement Technique for Stabilizing the Light Output of RGB LED Lamps. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 661-670.	2.4	43
36	A PFC Single-Coupled-Inductor Multiple-Output LED Driver Without Electrolytic Capacitor. IEEE Transactions on Power Electronics, 2019, 34, 1709-1725.	5.4	43

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37	Design of symmetrical class E power amplifiers for very low harmonic-content applications. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2005, 52, 1684-1690.	0.1	40
38	Sustained Slow-Scale Oscillation in Higher Order Current-Mode Controlled Converter. IEEE Transactions on Circuits and Systems II: Express Briefs, 2008, 55, 489-493.	2.2	37
39	Analysis and Design of a High-Voltage-Gain Hybrid Switched-Capacitor Buck Converter. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 1132-1141.	3.5	37
40	A new approach to the modeling of converters for SPICE simulation. IEEE Transactions on Power Electronics, 1992, 7, 741-753.	5.4	34
41	Analysis, modeling, and simulation of series-parallel resonant converter circuits. IEEE Transactions on Power Electronics, 1995, 10, 605-614.	5.4	34
42	Analysis and control of S/SP compensation contactless resonant converter with constant voltage gain. , 2013, , .		33
43	A Current Balancing Scheme With High Luminous Efficacy for High-Power LED Lighting. IEEE Transactions on Power Electronics, 2014, 29, 2649-2654.	5.4	33
44	Line-Frequency Instability of PFC Power Supplies. IEEE Transactions on Power Electronics, 2009, 24, 469-482.	5.4	31
45	A novel transformer for contactless energy transmission systems. , 2009, , .		27
46	INTERACTION OF FAST-SCALE AND SLOW-SCALE BIFURCATIONS IN CURRENT-MODE CONTROLLED DC/DC CONVERTERS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 1609-1622.	0.7	26
47	Design methodology of a series-series inductive power transfer system for electric vehicle battery charger application. , 2014, , .		26
48	INTERMITTENT CHAOTIC OPERATION IN SWITCHING POWER CONVERTERS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2004, 14, 2971-2978.	0.7	25
49	Overall Loss Compensation and Optimization Control in Single-Stage Inductive Power Transfer Converter Delivering Constant Power. IEEE Transactions on Power Electronics, 2022, 37, 1146-1158.	5.4	24
50	Comparison of Basic Inductive Power Transfer Systems With Linear Control Achieving Optimized Efficiency. IEEE Transactions on Power Electronics, 2020, 35, 3276-3286.	5.4	23
51	Bifurcation Behavior of SPICE Simulations of Switching Converters: A Systematic Analysis of Erroneous Results. IEEE Transactions on Power Electronics, 2007, 22, 1743-1752.	5.4	20
52	Suppression and generation of chaos for a three-dimensional autonomous system using parametric perturbations. Chaos, Solitons and Fractals, 2007, 31, 811-819.	2.5	19
53	Optimal Design of Complex Switched-Capacitor Converters Via Energy-Flow-Path Analysis. IEEE Transactions on Power Electronics, 2017, 32, 1170-1185.	5.4	19
54	Design for continuousâ€currentâ€mode operation of inductiveâ€powerâ€transfer converters with loadâ€independent output. IET Power Electronics, 2019, 12, 2458-2465.	1.5	19

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55	A More Efficient PFC Single-Coupled-Inductor Multiple-Output Electrolytic Capacitor-Less LED Driver With Energy-Flow-Path Optimization. IEEE Transactions on Power Electronics, 2019, 34, 9052-9066.	5.4	19
56	General control for boost PFC converter from a sliding mode viewpoint. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	18
57	Modeling and Design of Contactless Sliprings for Rotary Applications. IEEE Transactions on Industrial Electronics, 2019, 66, 4130-4140.	5.2	18
58	Bifurcation Analysis of a Current-Mode-Controlled DC Cascaded System and Applications to Design. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 3214-3224.	3.7	18
59	Adding Randomness to Modeling Internet TCP-RED Systems With Interactive Gateways. IEEE Transactions on Circuits and Systems II: Express Briefs, 2010, 57, 300-304.	2.2	16
60	A study of sectional tracks in roadway inductive power transfer system. , 2011, , .		16
61	Compensation technique for optimized efficiency and voltage controllability of IPT systems. , 2012, , .		16
62	Isolated PFC Pre-Regulator for LED Lamps. , 2008, , .		15
63	Small signal simulation of switching converters. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 1999, 46, 731-739.	0.1	14
64	Robust current control for boost PFC converters from a sliding mode viewpoint. International Journal of Circuit Theory and Applications, 2011, 39, 543-556.	1.3	14
65	A wavelet-based piecewise approach for steady-state analysis of power electronics circuits. International Journal of Circuit Theory and Applications, 2006, 34, 559-582.	1.3	13
66	An improved wavelet approach for finding steady-state waveforms of power electronics circuits using discrete convolution. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2005, 52, 690-694.	2.3	12
67	A rate control algorithm using human visual system for video conferencing systems. , 0, , .		11
68	Output current characterization of parallel-series/series compensated resonant converter for contactless power transfer. , 2015, , .		11
69	A model for coupling under coil misalignment for DD pads and circular pads of WPT system. , 2016, , .		11
70	Inductive Power Transfer System With Maximum Efficiency Tracking Control and Real-Time Mutual Inductance Estimation. IEEE Transactions on Power Electronics, 2022, 37, 6156-6167.	5.4	11
71	OSCILLATION AND PERIOD DOUBLING IN TCP/RED SYSTEM: ANALYSIS AND VERIFICATION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 1459-1475.	0.7	10
72	Steady-State Analysis of Series/Series-Parallel Compensated Contactless Resonant Converter. , 2014, , .		9

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73	Design consideration of a current-source-output inductive power transfer LED lighting system. , 2014, , .		9
74	Characterization and control of self-oscillating contactless resonant converter with fixed voltage gain. , 2012, , .		8
75	Currentâ€fed isolated PFC preâ€regulator for multiple LED lamps with extended lifetime. International Journal of Circuit Theory and Applications, 2012, 40, 759-775.	1.3	8
76	Analysis and comparison of secondary series- and parallel-compensated IPT systems. , 2013, , .		8
77	Balancing Control Strategy for Li-Ion Batteries String Based on Dynamic Balanced Point. , 2013, , .		8
78	Load-independent current output of inductive power transfer converters with optimized efficiency. , 2014, , .		8
79	Modeling of unbalanced threeâ€phase drivingâ€point impedance with application to control of gridâ€connected power converters. International Journal of Circuit Theory and Applications, 2016, 44, 851-873.	1.3	8
80	Parallel resonant converter as a circuit simulation primitive. IET Circuits, Devices and Systems, 1995, 142, 379.	0.6	7
81	Stability Analysis of Two-Stage PFC Power Supplies. , 0, , .		7
82	Research on seamless transfer from CC to CV modes for IPT EV charging system based on double-sided LCC compensation network. , 2016, , .		7
83	Analysis and design of an integrated LCL-S contactless resonant converter. , 2018, , .		7
84	General Pathways to Higher Order Compensation Circuits for IPT Converters via Sensitivity Analysis. IEEE Transactions on Power Electronics, 2021, 36, 9897-9906.	5.4	7
85	Analysis and design of class E power amplifier with nonlinear parasitic capacitance at any duty ratio. Microwave and Optical Technology Letters, 2007, 49, 920-923.	0.9	6
86	Gyrator-Capacitor Simulation Model of Nonlinear Magnetic Core. , 2009, , .		6
87	Controller saturation nonlinearity in doubly fed induction generatorâ€based wind turbines under unbalanced grid conditions. International Journal of Circuit Theory and Applications, 2016, 44, 1602-1619.	1.3	6
88	Power converter with novel transformer structure for wireless power transfer using a DD2Q power receiver coil set. , 2016, , .		6
89	Study of parasitic and stray components induced ringings in class E power amplifiers in MHz range. , 0, , .		5
90	Stability Analysis of RED Gateway with Multiple TCP Reno Connections. , 2007, , .		5

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91	Phase-shifted full-bridge PWM converter with clamping diodes and current transformer. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	5
92	Analysis, design and control of a transcutaneous power regulator for artificial heart. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	5
93	Forced Oscillations in Wind Energy Generation Systems. , 2009, , .		5
94	BIFURCATION IN WIND ENERGY GENERATION SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 3795-3800.	0.7	5
95	Design of a transcutaneous power regulator for artificial hearts. , 2010, , .		5
96	Bifurcation study of wind energy generation systems. , 2011, , .		5
97	Anti-windup dual-loop control of DFIG under unbalanced voltage conditions. , 2012, , .		5
98	A series of exponential step-down switched-capacitor converters and their applications in two-stage converters. , 2013, , .		5
99	Self-oscillating contactless resonant converter with power transfer and current sensing integrated transformer. , 2015, , .		5
100	Analysis, control and design of a long-lifetime AC-DC bus converter within a nanogrid. , 2015, , .		5
101	Design of an IPT Battery Charger with Double-sided LCC Compensation. , 2018, , .		5
102	Al-recoil implantation into n-type Si using different primary ions. Semiconductor Science and Technology, 1988, 3, 6-11.	1.0	4
103	Application of Novel D^2T Control to Single-Switch Two-Output Switching Power Converters. IEEE Transactions on Power Electronics, 2005, 20, 870-876.	5.4	4
104	A Model for Stability Study of PFC Power Supplies. , 2007, , .		4
105	Electronic ballast for multiple LED lamps with independent brightness control. , 2009, , .		4
106	Interacting bifurcation phenomenon in three-phase voltage source converter connected to non-ideal power grid. , 2013, , .		4
107	Discrete Fourier series-based dual-sequence decomposition control of doubly-fed induction generator wind turbine under unbalanced grid conditions. Journal of Renewable and Sustainable Energy, 2015, 7, 023130.	0.8	4
108	Compact Capacitive Compensation for Adjustable Load-Independent Output and Zero-Phase-Angle Input for High Efficiency IPT Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 4923-4936.	3.7	4

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109	Macromodelling series-resonant convertor circuits. IET Circuits, Devices and Systems, 1995, 142, 83.	0.6	3
110	Stability analysis of complete two-stage power-factor-correction power supplies. , 0, , .		3
111	Erroneous Results from SPICE Simulations of Switching Converters: A Dynamical System Viewpoint. , 0, , .		3
112	STUDY OF BIFURCATION BEHAVIOR OF LDPC DECODERS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2006, 16, 3435-3449.	0.7	3
113	Catastrophic bifurcation in three-phase boost rectifiers. , 2011, , .		3
114	Analysis of a high-voltage-gain hybrid switched-capacitor buck converter. , 2011, , .		3
115	Analysis, design and control of a double-input contactless resonant converter. , 2012, , .		3
116	Contactless electronic ballast for high brightness LED lamps with positionally dimmed method. , 2012, , .		3
117	A Novel Topology Design for Integration of Offshore Wind Farm via High-voltage DC Transmission. Electric Power Components and Systems, 2015, 43, 1100-1112.	1.0	3
118	Equivalency analysis of primary series- and series-parallel-compensated contactless resonant converter. , 2017, , .		3
119	Control scheme and characteristics analysis of three-phase series resonant converter suitable for contactless slipping system. , 2017, , .		3
120	Steady State Analysis of Wireless Power Transfer System with Rectifier-Load under DCM. , 2019, , .		3
121	Shallow Sb-doped Si surface layers formed by recoil implantation. Journal of Materials Science, 1989, 24, 1073-1076.	1.7	2
122	Study of nonlinear dynamics of LDPC decoders. , 0, , .		2
123	Optimum Design of Very Low Distortion Class E Power Amplifiers. , 0, , .		2
124	DETRENDED FLUCTUATION ANALYSIS OF THE TCP-RED ALGORITHM. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2009, 19, 4237-4245.	0.7	2
125	Ballast for independent control of multiple LED lamps. , 2009, , .		2
126	Bifurcation behavior of wind energy generation systems. , 2010, , .		2

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127	Resonant assisted buck converter for offline driving of high brightness LED replacement lamps. , 2010, , .		2
128	Catastrophic Bifurcation in Three-Phase Voltage-Source Converters. , 2011, , .		2
129	A novel control scheme for a double-input contactless resonant converter. , 2012, , .		2
130	Irreversible instability in three-phase voltage-source converter connected to non-ideal power grid with interacting load. , 2012, , .		2
131	A current balancing scheme with high luminous efficiency for high power LED lighting. , 2013, , .		2
132	A set of independent admittance bases for decoupled analysis of unbalanced three-phase systems. , 2013, , .		2
133	Research of the input-parallel output-series inductive power transfer system. , 2015, , .		2
134	Control and modulation of a family of bidirectional AC-DC converters with active power compensation. , 2015, , .		2
135	Design of S/P compensated IPT system considering parameter variations in consideration of ZVS achievement. , 2016, , .		2
136	Fast time domain simulation of generic resonant mode power converter: mapping the stability region. IET Circuits, Devices and Systems, 2000, 147, 211.	0.6	1
137	Method of double averaging for modeling PFC switching converters. , 0, , .		1
138	Wavelet-Based Piecewise Approximation of Steady-State Waveforms for Power Electronics Circuits. , 0, , .		1
139	Stability study of the TCP-RED system using detrended fluctuation analysis. , 2008, , .		1
140	A loosely coupled transformer with mixed winding and electromagnetic shielding for contactless power transmission. , 2014, , .		1
141	Bifurcation study of three-phase inverter system with interacting loads. , 2015, , .		1
142	Border Collision of Three-Phase Voltage-Source Inverter System with Interacting Loads. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650132.	0.7	1
143	Fast linear control for maximum energy efficiency of wireless power transfer systems. , 2017, , .		1
144	Characteristic, Design and Implementation of Double-Sided LC Compensation with Flexible Constant-Current Outputs for Inductive Power Transfer Applications. , 2018, , .		1

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145	Averaged piecewise transform for resonant power converters. , 1999, , .		0
146	Contactless electronic ballast for high brightness LED lamps with mechanical dimming method. , 2012, , .		0
147	Hopf-type Bifurcation in Three-Phase PFC Power Supplies Connected to Non-ideal Power Grid. , 2012, , .		0
148	Line-frequency instability of three-phase PFC power supplies connecting to non-ideal power grid. , 2012, , .		0
149	IRREVERSIBLE BIFURCATION PHENOMENON IN POWER-GRID CONNECTED CONVERTER SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250155.	0.7	0
150	Period-doubling bifurcation and its boundary study of DFIGWind turbine connected with local interacting unbalanced loads in micro-grid. , 2014, , .		0
151	The selection and comparison of multi-coil wireless power transmission solutions via magnetic resonances. , 2015, , .		0
152	Impedance modeling of DFIG-wind turbine system. , 2015, , .		0
153	Comparison of Second-Order and Third-Order Compensation of Inductive Power Transfer Converters Based on Sensitivity Analysis. , 2020, , .		0