

# Eiji Hiraki

## List of Publications by Year in descending order

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101  
papers

608  
citations

933447

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h-index

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101  
docs citations

101  
times ranked

391  
citing authors

#	ARTICLE	IF	CITATIONS
1	Smart Charger for Electric Vehicles With Power-Quality Compensator on Single-Phase Three-Wire Distribution Feeders. IEEE Transactions on Industry Applications, 2013, 49, 2628-2635.	4.9	67
2	Bidirectional DC-DC Converter with Full-bridge / Push-pull circuit for Automobile Electric Power Systems. , 0, , .		43
3	A Novel Detection Method of Active and Reactive Currents in Single-Phase Circuits Using the Correlation and Cross-Correlation Coefficients and Its Applications. IEEE Transactions on Power Delivery, 2007, 22, 2450-2456.	4.3	37
4	Straightforward Measurement Method of Common Source Inductance for Fast Switching Semiconductor Devices Mounted on Board. IEEE Transactions on Industrial Electronics, 2017, 64, 8258-8267.	7.9	22
5	Novel Simple Reactive Power Control Strategy With DC Capacitor Voltage Control for Active Load Balancer in Three-Phase Four-Wire Distribution Systems. IEEE Transactions on Industry Applications, 2015, 51, 4091-4099.	4.9	19
6	A design guideline of parasitic inductance for preventing oscillatory false triggering of fast switching GaN-FET. IEEE Transactions on Electrical and Electronic Engineering, 2016, 11, S84.	1.4	18
7	An Isolated Bidirectional DC-DC Soft Switching Converter for Super Capacitor Based Energy Storage Systems. , 2007, , .		17
8	Simultaneous Tuning of Rotor Shape and Phase Current of Switched Reluctance Motors for Eliminating Input Current and Torque Ripples With Reduced Copper Loss. IEEE Transactions on Industry Applications, 2020, 56, 6384-6398.	4.9	16
9	Full bridge phase-shifted soft switching high-frequency inverter with boost PFC function for induction heating system. , 2007, , .		15
10	Analytical Formulation of Copper Loss of Litz Wire With Multiple Levels of Twisting Using Measurable Parameters. IEEE Transactions on Industry Applications, 2021, 57, 2407-2420.	4.9	15
11	A new half-bridge based inverter with the reduced-capacity DC capacitors for DC micro-grid. , 2010, , .		13
12	A constant DC voltage control based compensation method of an active power quality compensator for electrified railways. IEEE Transactions on Electrical and Electronic Engineering, 2009, 4, 435-441.	1.4	12
13	A charge boost type multi output full bridge high frequency soft switching inverter for IH cooking appliance. , 2010, , .		12
14	Loss evaluation of an AC-AC direct converter with a new GaN HEMT SPICE model. , 2011, , .		12
15	The practical evaluations of time-sharing high-frequency resonant soft-switching inverter for all metal IH cooking appliances. , 2012, , .		12
16	Feasible evaluation of a full-bridge inverter for induction heating cooking appliances with discontinuous current mode PFC control. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	11
17	Dual-frequency multiple-output resonant soft-switching inverter for induction heating cooking appliances. , 2013, , .		11
18	A New Soft-Switched Bidirectional DC-DC Converter Topology for Automotive High Voltage DC Bus Architectures. , 2006, , .		10

#	ARTICLE	IF	CITATIONS
19	Peak Power Shaving of an Electric Injection Molding Machine With Supercapacitors. IEEE Transactions on Industry Applications, 2014, 50, 1114-1120.	4.9	10
20	Simple control technique to eliminate source current ripple and torque ripple of switched reluctance motors for electric vehicle propulsion. , 2016, , .		10
21	Phaseâ€current waveform for switched reluctance motors to eliminate inputâ€current ripple and torque ripple in lowâ€power propulsion below magnetic saturation. IET Power Electronics, 2020, 13, 3351-3359.	2.1	10
22	Energy-Saving Effect of the Add-on Energy Recovery System for Electric Motor Drive Systems in the Injection Molding Machine. IEEJ Transactions on Industry Applications, 2010, 130, 713-714.	0.2	9
23	Constant DC capacitor voltage control based strategy for active load balancer in three-phase four-wire distribution system. , 2013, , .		8
24	Simple Fully Analytical Copper Loss Model of Litz Wire Made of Strands Twisted in Multiple Levels. , 2019, , .		8
25	A New Current Balancer in Single-Phase Three-Wire Secondary Distribution Feeders Using the Correlation Coefficients. IEEJ Transactions on Industry Applications, 2007, 127, 675-681.	0.2	7
26	Stand-alone photovoltaic generation system with combined storage using lead battery and EDLC. , 2008, , .		7
27	Lagrangian derivation and analysis of a simple equivalent circuit model of wireless power transfer system with dual transmitting resonators. , 2016, , .		7
28	Simple analytical derivation of magnetic flux profile eliminating source current ripple and torque ripple of switched reluctance motors for electric vehicle propulsion. , 2017, , .		7
29	Verification of the Reduction of the Copper Loss by the Thin Coil Structure for Induction Cookers. , 2018, , .		7
30	A New Control Method of Current Balancer for Single-Phase Three-Wire Secondary Distribution Systems Using the Correlation and Cross-Correlation Coefficients. IEEJ Transactions on Industry Applications, 2008, 128, 34-40.	0.2	7
31	Practical Power Loss Analysis Simulator Development of Switching Mode Power Converter Using Measured Characteristic Values of Power Semiconductor Devices. IEEJ Transactions on Industry Applications, 2002, 122, 1142-1143.	0.2	6
32	Control strategies of active power line conditioners in single-phase circuits. , 2011, , .		6
33	Lagrangianâ€based equivalent circuit of basic electricâ€field coupling wireless power transfer system. IEEJ Transactions on Electrical and Electronic Engineering, 2015, 10, S168.	1.4	6
34	Rotor Configuration Which Reduces Copper Loss of Switched Reluctance Motors with Suppression of Torque Ripple and Input Current Ripple. , 2018, , .		6
35	Advanced High Power DC-DC Converter using A Novel Type Voltage Source Full-Bridge Soft-Switching PWM Inverter with High Frequency Transformer Link for Arc Welding Applications. IEEJ Transactions on Industry Applications, 2006, 126, 237-247.	0.2	6
36	A New Method of Compensating Harmonic Currents for Wind Power Generation Systems with the Soft Starter Using a Hybrid Active Filter. IEEJ Transactions on Industry Applications, 2008, 128, 885-891.	0.2	6

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37	Bidirectional DC-DC Converter for Supercapacitor-Linked Power Interface in Advanced Electric Vehicles. IEEJ Transactions on Industry Applications, 2006, 126, 529-530.	0.2	5
38	A half-bridge inverter based current balancer with the reduced dc capacitors in single-phase three-wire distribution feeders. , 2011, , .		5
39	A constant DC-capacitor voltage control based strategy for current balancer in single-phase three-wire distribution systems. , 2011, , .		5
40	A simple behavior model for switched reluctance motors based on magnetic energy. , 2016, , .		5
41	Extremum Co-Energy Principle for Analyzing AC Current Distribution in Parallel-Connected Wires of High-Frequency Power Inductors. IEEJ Journal of Industry Applications, 2018, 7, 35-42.	1.1	5
42	Power Electronics in Latest Small-Scale High Frequency Switching Power Converters. IEEJ Transactions on Industry Applications, 2005, 125, 955-963.	0.2	5
43	A New Current Balancer for Single-Phase Three-Wire Secondary Distribution Feeders Using the Correlation Coefficients. , 2007, , .		4
44	Lagrangian-Based Derivation of a Novel Sliding-Mode Control for Synchronous Buck Converters. IEEJ Journal of Industry Applications, 2015, 4, 728-729.	1.1	4
45	Copper loss analysis based on extremum co-energy principle for high frequency forward transformers with parallel-connected windings. , 2016, , .		4
46	A Novel Half-Bridge Asymmetrical ZCS-PWM DC-DC Converter with High Frequency-Link. IEEJ Transactions on Industry Applications, 2008, 128, 388-395.	0.2	4
47	A Novel Low-Voltage / High-Current ZCS-PWM DC- DC Converter with Asymmetrical Auxiliary Edge-Resonant Lossless Snubber. , 2007, , .		3
48	Peak power shaving of an electric injection molding machine with supercapacitors. , 2012, , .		3
49	Performance analysis for high-frequency link AC-AC contact-less power supply system in parking tower. , 2012, , .		3
50	Reactive Power Control Strategy Based on DC Capacitor Voltage Control for Active Load Balancer in Three-Phase Four-Wire Distribution Systems. IEEJ Journal of Industry Applications, 2015, 4, 158-165.	1.1	3
51	Optimal Winding Layer Allocation for Minimizing Copper Loss of Secondary-Side Center-Tapped Forward Transformer with Parallel-Connected Secondary Windings. , 2019, , .		3
52	A New Control Method of the Current Balancer in Single-Phase Three-Wire Secondary Distribution Systems Using the Correlation Function. IEEJ Transactions on Industry Applications, 2006, 126, 84-85.	0.2	3
53	High-Frequency Switched Resonant Mode Power Conversion Technologies. Feasible Applications of Resonant Power Conversion Circuit Systems.. IEEJ Transactions on Industry Applications, 1997, 117, 129-132.	0.2	3
54	Optimization of Common Source Inductance and Gate-Drain Capacitance for Reducing Gate Voltage Fluctuation after Turn-off Transition. , 2020, , .		3

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55	Design Method of Digital Optimal Control Scheme and Multiple Paralleled Bridge Type Current Amplifier for Generating Gradient Magnetic Fields in MRI Systems. IEEJ Transactions on Industry Applications, 2003, 123, 894-902.	0.2	2
56	High-Efficient High Frequency Linked Zero Voltage Soft Switching PWM DC/DC Power Converter with ON/OFF-Assisted Synchronous Rectifier Scheme. IEEJ Transactions on Industry Applications, 2003, 123, 1414-1421.	0.2	2
57	A new control method of a current balancer in single-phase three-wire secondary distribution systems using the correlation and cross-correlation coefficients. , 2008, , .		2
58	A novel soft switching three-phase utility frequency AC to high frequency AC direct power converter with PFC function for industrial IH appliance. , 2009, , .		2
59	A constant DC voltage control-based strategy for an active power quality compensator in electrified railways with improved response. IEEJ Transactions on Electrical and Electronic Engineering, 2012, 7, 316-321.	1.4	2
60	A study on GaN inverter based MHz frequency induction heating for tiny metals. , 2013, , .		2
61	Reduced-capacity smart charger for electric vehicles on single-phase three-wire distribution feeders with reactive power control. , 2013, , .		2
62	Practical Evaluations of a Novel Asymmetrical ZCS-PWM DC-DC Converter with High-Frequency Transformer-Link. IEEJ Transactions on Industry Applications, 2010, 130, 605-613.	0.2	2
63	Feasible Performance Evaluations of New Single Inductor-Type Auxiliary Resonant AC Link Snubber for Voltage Source Soft Switching Inverter using IGBTs. IEEJ Transactions on Industry Applications, 2002, 122, 617-623.	0.2	2
64	Performance Evaluations of A Single Inductor Type Resonant AC Link Snubber-Assisted Three-Phase Voltage Source Soft-Switching Inverter. IEEJ Transactions on Industry Applications, 2003, 123, 1269-1275.	0.2	2
65	Newly-Proposed Hybrid Resonant Commutaion Bridge Leg Link Snubber-Assisted Three-Phase ZVZCS-PWM Soft-Switching Inverter.. IEEJ Transactions on Industry Applications, 2004, 124, 286-294.	0.2	2
66	A Constant DC Voltage Control Based Strategy for the Current Balancer in Single-Phase Three-Wire Secondary Distribution Systems. IEEJ Transactions on Industry Applications, 2010, 130, 935-936.	0.2	2
67	Parasitic Inductance Design for Preventing Oscillatory False Triggering of Parallel-Connected GaN-FETs. , 2021, , .		2
68	Sinusoidal-Flux Reluctance Machine Driven with Three-Phase Inverter for Improving Power Density with Reduced Torque and Input Current Ripples. , 2021, , .		2
69	Two-Paralleled Bridge Type High Frequency PWM Chopper with Multi-Loop Current Feedback Tracking Scheme for Gradient Magnetic Field Controller.. IEEJ Transactions on Industry Applications, 2003, 123, 188-195.	0.2	1
70	An Isolated Bidirectional DC-DC Converter based Super-Capacitor Interface for Automobile Electric Power Systems. , 2006, , .		1
71	A large-capacity capacitor simulator with an inner-series resistor. , 2011, , .		1
72	A ubiquitous power with DC micro-grid for Sectional Compact Emergency Shelters. , 2011, , .		1

#	ARTICLE	IF	CITATIONS
73	A half-bridge inverter based Active Power Quality Compensator using a constant DC capacitor voltage control for electrified railways. , 2012, , .		1
74	A starting method of the harmonic current compensator using a hybrid active filter for wind power generation systems with soft starters. IEEJ Transactions on Electrical and Electronic Engineering, 2012, 7, S139.	1.4	1
75	A Large-Capacity Capacitor Simulator Using a Bi-directional Chopper and PWM Rectifier. IEEJ Transactions on Industry Applications, 2009, 129, 852-853.	0.2	1
76	A New Control Method of a Large-Capacity Capacitor Simulator with an Inner Series Resistor. IEEJ Transactions on Industry Applications, 2010, 130, 1189-1190.	0.2	1
77	A Time-Sharing High-Frequency Inverter for All Metal IH Cooking Appliances. IEEJ Transactions on Industry Applications, 2013, 133, 692-699.	0.2	1
78	A High-Frequency Link AC-AC Converter for Contactless Power Supply System in Parking Tower. IEEJ Transactions on Industry Applications, 2014, 134, 139-146.	0.2	1
79	Novel Control Algorithm for Active Load Balancer in Three-Phase Four-Wire Distribution Systems. IEEJ Journal of Industry Applications, 2014, 3, 286-287.	1.1	1
80	Constant DC Capacitor Voltage Control based Strategy for Active Load Balancer in Three-phase Four-wire Distribution Systems. Journal of International Conference on Electrical Machines and Systems, 2014, 3, 176-183.	0.3	1
81	Feasibility of Parasitic Drain Inductance Design for Minimizing Switching Loss in Bridge Circuits Using GaN-FETs. , 2021, , .		1
82	Homogenization of Current Distribution in Parallel Connection of Interleaved Winding Layers of High-Frequency Transformers by Optimizing Distance between Winding Layers. , 2020, , .		1
83	Six-Phase Switched Reluctance Motors with Small Torque Ripple, Radial Force Ripple, DC Current Ripple, Copper Loss, and Number of Switches. , 2021, , .		1
84	Series Resonant ZCS-PFM DC-DC Power Converter with High-Frequency High-Voltage Transformer Link for High-Power Magnetron Drive. IEEJ Transactions on Industry Applications, 2004, 124, 352-359.	0.2	0
85	Consideration of time sharing output pulse pattern using instantaneous space voltage vector moderation for three-phase voltage source soft-switching inverter. Electronics and Communications in Japan, 2005, 88, 34-40.	0.1	0
86	A New Method of Compensating Harmonic Currents under the Soft Start in Wind Power Generation Systems Using the Hybrid Filter. IEEJ Transactions on Industry Applications, 2006, 126, 818-819.	0.2	0
87	A New Method of Compensating Harmonic Currents for Wind Power Generation Systems with the Soft Starter Using A Hybrid Active Filter. , 2007, , .		0
88	A half-bridge inverter based Active Power Quality Compensator with a DC voltage balancer for electrified railways. , 2011, , .		0
89	Feasible evaluation of high-frequency link AC-AC contact-less power supply system in parking tower. , 2012, , .		0
90	Topology for current balancer with half-bridge inverters in single-phase three-wire distribution systems with DC-capacitor-voltage balancer. Electrical Engineering in Japan (English Translation of) Tj ETQq0 0 0 rgBT4/Overlook 10 Tf 50		0

#	ARTICLE	IF	CITATIONS
91	A new current control strategy based on the internal model principle for a current balancer in single-phase three-wire distribution systems. IEEJ Transactions on Electrical and Electronic Engineering, 2013, 8, S95-S101.	1.4	0
92	A novel active power quality compensator topology with DC voltage balancer for electrified railways. IEEJ Transactions on Electrical and Electronic Engineering, 2013, 8, 634-639.	1.4	0
93	Verification of Device Model by Measuring Capacitance and Static Characteristics for Predicting Switching Waveform. , 2019, , .		0
94	Feasibility of Sinusoidal Flux Drive Design of Reluctance Motor for Reducing Torque and Input Current Ripples with Three-Leg Inverter. , 2021, , .		0
95	A Novel Detection Method of Active and Reactive Currents in Single-Phase Circuits Using PLL Circuit. IEEJ Transactions on Industry Applications, 2007, 127, 538-539.	0.2	0
96	A Constant DC Voltage Control Based Method of the Active Power Quality Compensator for Electrified Railways. IEEJ Transactions on Industry Applications, 2008, 128, 145-146.	0.2	0
97	New Control Method of Active Power Quality Compensator with Reduced-Capacity Three-Leg Inverter for Electrified Railways. IEEJ Transactions on Industry Applications, 2009, 129, 907-913.	0.2	0
98	A New Starting Method of the Hybrid Power Filter for Wind Power Generation Systems with Soft Starter. IEEJ Transactions on Industry Applications, 2010, 130, 574-575.	0.2	0
99	A Constant DC-Capacitor Voltage Control Based Strategy for Current Balancer in Single-Phase Three-Wire Distribution Systems. IEEJ Transactions on Industry Applications, 2012, 132, 581-587.	0.2	0
100	Multiple-Output High-Frequency Inverter for IH Cooking Appliances. IEEJ Transactions on Industry Applications, 2014, 134, 477-478.	0.2	0
101	Reactive Power Control without Load-Side Power Calculation for Smart Charger of Electric Vehicles on Single-Phase Three-Wire Distribution Feeders. Journal of the Japan Institute of Power Electronics, 2014, 40, 63-69.	0.0	0