Kuo-Ing Hwu

List of Publications by Citations

158 papers	1,668 citations	24 h-index	35 g-index
216 ext. papers	2,157 ext. citations	4 avg, IF	5.41 L-index

#	Paper	IF	Citations
158	KY Converter and Its Derivatives. *IEEE Transactions on Power Electronics*, **2009**, 24, 128-137	7.2	90
157	A Novel Buck-Boost Converter Combining KY and Buck Converters. *IEEE Transactions on Power Electronics*, **2012**, 27, 2236-2241	7.2	87
156	A Simple Current-Balancing Converter for LED Lighting **2009**,		61
155	Two Types of KY Buck-Boost Converters. *IEEE Transactions on Industrial Electronics*, **2009**, 56, 2970-2980	8.9	59
154	High Step-Up Converter Based on Charge Pump and Boost Converter. *IEEE Transactions on Power Electronics*, **2012**, 27, 2484-2494	7.2	58
153	A KY Boost Converter. *IEEE Transactions on Power Electronics*, **2010**, 25, 2699-2703	7.2	56
152	Ultrahigh Step-Down Converter. *IEEE Transactions on Power Electronics*, **2015**, 30, 3262-3274	7.2	53
151	High Step-Up Converter Based on Coupling Inductor and Bootstrap Capacitors With Active Clamping. *IEEE Transactions on Power Electronics*, **2014**, 29, 2655-2660	7.2	51
150	Powering LED Using High-Efficiency SR Flyback Converter. *IEEE Transactions on Industry Applications*, **2011**, 47, 376-386	4.3	49
149	An Interleaved AC-DC Converter Based on Current Tracking. *IEEE Transactions on Industrial Electronics*, **2009**, 56, 1456-1463	8.9	37
148	Performance Enhancement of Boost Converter Based on PID Controller Plus Linear-to-Nonlinear Translator. *IEEE Transactions on Power Electronics*, **2010**, 25, 1351-1361	7.2	35
147	Voltage Gain Enhancement for a Step-Up Converter Constructed by KY and Buck-Boost Converters. *IEEE Transactions on Industrial Electronics*, **2014**, 61, 1758-1768	8.9	33
146	An Expandable Two-Phase Interleaved Ultrahigh Step-Down Converter With Automatic Current Balance. *IEEE Transactions on Power Electronics*, **2017**, 32, 9223-9237	7.2	32
145	Applying a counter-based PWM control scheme to an FPGA-based SR forward converter		32
144	Nonisolated Coupled-Inductor-Based High Step-Down Converter With Zero DC Magnetizing Inductance Current and Nonpulsating Output Current. *IEEE Transactions on Power Electronics*, **2016**, 31, 4362-4377	7.2	27
143	High Voltage-Boosting Converters Based on Bootstrap Capacitors and Boost Inductors. *IEEE Transactions on Industrial Electronics*, **2013**, 60, 2178-2193	8.9	27
142	Isolated step-up converter based on flyback converter and charge pumps. *IET Power Electronics*, **2014**, 7, 2250-2257	2.2	27

141	Step-up converter combining KY and buck-boost converters. *Electronics Letters*, **2011**, 47, 722	1.1	27
140	Inductor-coupled KY boost converter. *Electronics Letters*, **2010**, 46, 1624	1.1	27
139	Ultrahigh Step-Down Converter With Wide Input Voltage Range Based on Topology Exchange. *IEEE Transactions on Power Electronics*, **2017**, 32, 5341-5364	7.2	26
138	Light-emitting diode driver with low-frequency ripple suppressed and dimming efficiency improved. *IET Power Electronics*, **2014**, 7, 105-113	2.2	25
137	High-step-up single-switch DCDC converter with low voltage spike. *IET Power Electronics*, **2015**, 8, 2504-2510	2.2	25
136	A Dimmable LED Driver Based on Current Balancing Transformer With Magnetizing Energy Recycling Considered. *Journal of Display Technology*, **2014**, 10, 388-395		24
135	Controllable and Dimmable AC LED Driver Based on FPGA to Achieve High PF and Low THD. *IEEE Transactions on Industrial Informatics*, **2013**, 9, 1330-1342	11.9	24
134	Applying one-comparator counter-based sampling to current sharing control of multi-channel LED strings **2010**,		24
133	Bidirectional Operation of High Step-Down Converter. *IEEE Transactions on Power Electronics*, **2015**, 30, 6829-6844	7.2	23
132	Analysis, design and derivation of a two-phase converter. *IET Power Electronics*, **2015**, 8, 1987-1995	2.2	23
131	Nonisolated Two-Channel LED Driver With Automatic Current Balance and Zero-Voltage Switching. *IEEE Transactions on Power Electronics*, **2016**, 31, 8359-8370	7.2	23
130	. *IEEE Transactions on Industrial Electronics*, **2016**, 63, 6064-6072	8.9	22
129	Voltage-boosting converters with hybrid energy pumping. *IET Power Electronics*, **2012**, 5, 185	2.2	22
128	Applying One-Comparator Counter-Based Sampling to Current Sharing Control of Multichannel LED Strings. *IEEE Transactions on Industry Applications*, **2011**, 47, 2413-2421	4.3	22
127	Fully Digitalized Implementation of PFC Rectifier in CCM Without ADC. *IEEE Transactions on Power Electronics*, **2012**, 27, 4021-4029	7.2	21
126	Voltage-Boosting Converter Based on Charge Pump and Coupling Inductor With Passive Voltage Clamping. *IEEE Transactions on Industrial Electronics*, **2010**, 57, 1719-1727	8.9	18
125	High-voltage-boosting converter with charge pump capacitor and coupling inductor combined with buckBoost converter. *IET Power Electronics*, **2014**, 7, 177-188	2.2	15
124	Dimmable driver for light-emitting diode with total harmonic distortion improved. *IET Power Electronics*, **2012**, 5, 59	2.2	15

123	Current Sharing Control Strategy Based on Phase Link. *IEEE Transactions on Industrial Electronics*, **2012**, 59, 701-713	8.9	15
122	A Novel Voltage-boosting Converter: KY Converter. *IEEE Applied Power Electronics Conference and Exposition*, **2007**,		15
121	Step-down converter with wide voltage conversion ratio. *IET Power Electronics*, **2015**, 8, 2136-2144	2.2	14
120	Resonant Voltage Divider With Bidirectional Operation and Startup Considered. *IEEE Transactions on Power Electronics*, **2012**, 27, 1996-2006	7.2	14
119	A LED current balancing driver with magnetizing inductance energy recycling considered **2012**,		13
118	Nonisolated Two-Phase Interleaved LED Driver With Capacitive Current Sharing. *IEEE Transactions on Power Electronics*, **2018**, 33, 2295-2306	7.2	12
117	Full-Digital AC-DC Converter With PFC Based on Counting. *IEEE Transactions on Industrial Informatics*, **2015**, 11, 122-131	11.9	11
116	Voltage Gain Improvement of a High-Step-Down Converter With Coupled-Inductor Core Size Reduction Based on Flux Linkage. *IEEE Transactions on Power Electronics*, **2018**, 33, 6033-6047	7.2	11
115	Dimmable AC LED Driver With Efficiency Improved Based on Switched LED Module. *Journal of Display Technology*, **2014**, 10, 171-181		11
114	Improvement of One-comparator Counter-based PWM Control by Applying a Sawtoothed Wave Injection Method. *IEEE Applied Power Electronics Conference and Exposition*, **2007**,		11
113	Single-Switch Coupled-Inductor-Based Two-Channel LED Driver With a Passive Regenerative Snubber. *IEEE Transactions on Power Electronics*, **2017**, 32, 4482-4490	7.2	9
112	Applying Differential-Mode Transformer to Current Sharing With Current Ripple Considered. *IEEE Transactions on Industrial Electronics*, **2011**, 58, 2755-2771	8.9	9
111	LED dimming with efficiency considered. *Electronics Letters*, **2011**, 47, 457	1.1	9
110	A high brightness light-emitting diode driver with power factor and total harmonic distortion improved **2011**,		8
109	Powering LED Using High-Efficiency SR Flyback Converter **2009**,		8
108	Expandable two-channel LED driver with galvanic isolation and automatic current balance. *IET Power Electronics*, **2018**, 11, 825-833	2.2	8
107	Analysis and design of a high-step-down ratio resonant converter. *IET Power Electronics*, **2016**, 9, 864-873	2.2	7
106	Isolated high voltage-boosting converter derived from forward converter. *International Journal of Circuit Theory and Applications*, **2016**, 44, 280-304	2	6

105	A novel negative-output KY buck-boost converter **2009**,		6
104	A Novel voltage-boosting converter with passive voltage clamping **2008**,		6
103	Active load for burn-in test of buck-type DC-DC converter with ultra-low output voltage. *IEEE Applied Power Electronics Conference and Exposition*, **2008**,		6
102	A Novel Dimming Technique for Cold Cathode Fluorescent Lamp **2007**,		6
101	An isolated high step-up converter with continuous input current and LC snubber **2016**,		6
100	Interleaved Boost Converter with ZVT-ZCT for the Main Switches and ZCS for the Auxiliary Switch. *Applied Sciences (Switzerland)*, **2020**, 10, 2033	2.6	6
99	Input-Current-Ripple-Free Two-Channel LED Driver. *IEEE Transactions on Industrial Electronics*, **2017**, 64, 5865-5874	8.9	5
98	Inductor saturation detection with anti-saturation control strategy applied **2013**,		5
97	Photovoltaic Energy Conversion System Constructed by High Step-Up Converter with Hybrid Maximum Power Point Tracking. *International Journal of Photoenergy*, **2013**, 2013, 1-9	2.1	5
96	High step-up converter based on charge pump and boost converter **2010**,		5
95	Improvement of one-comparator counter-based PFM control for DC-DC converter **2009**,		5
94	Simple design of a soft-switching buck converter **2008**,		5
93	A novel voltage-bucking/boosting converter: KY buck-boost converter **2008**,		5
92	Improvement in Efficiency of the Phase-shift Current-doubler-rectification ZVS Full-bridge DC-DC Converter. *IEEE Applied Power Electronics Conference and Exposition*, **2007**,		5
91	Applying a Counter-based PFM Control Strategy to an FPGA-based SR Forward Converter **2006**,		5
90	Dimmable AC LED Driver Based on Series Drive. *Journal of Display Technology*, **2016**, 12, 1097-1105		5
89	Improvement on voltage gain for KY converter. *IET Power Electronics*, **2015**, 8, 361-370	2.2	4
88	Two-Phase Interleaved Boost Converter with ZVT Turn-On for Main Switches and ZCS Turn-Off for Auxiliary Switches Based on One Resonant Loop. *Applied Sciences (Switzerland)*, **2020**, 10, 3881	2.6	4

87	Pulse-Frequency-Modulated Digital Control of Power Supply Without Analog-to-Digital Converter Using Positive-Sloped Ramp Wave Injection. *IEEE Transactions on Industrial Informatics*, **2013**, 9, 739-748	11.9	4
86	Ultrahigh step-down converter with active clamp **2017**,		4
85	Improvement in Efficiency of LED Lighting System Based on Reduction of Voltage across MOSFET. *IEEJ Journal of Industry Applications*, **2015**, 4, 650-653	0.7	4
84	A simple step-up converter **2011**,		4
83	Negative-output KY boost converter **2009**,		4
82	Bidirectional control of inverse KY converter **2009**,		4
81	Soft switching of KY converter. *IEEE Applied Power Electronics Conference and Exposition*, **2008**,		4
80	Light-load efficiency improvement for flyback converter based on hybrid clamp circuit **2016**,		4
79	Dimmable LED Driver Based on Twin-Bus Converter and Differential-Mode Transformer. *Journal of Display Technology*, **2016**, 12, 1122-1129		4
78	DC-DC converter with large step-down voltage conversion ratio **2016**,		4
77	Automatic current-sharing extendable two-channel LED driver with non-pulsating input current and zero dc flux. *International Journal of Circuit Theory and Applications*, **2018**, 46, 1462-1484	2	4
76	Time-sharing PWM control scheme for isolated multi-output DCDC converter. *Electronics Letters*, **2015**, 51, 1446-1447	1.1	3
75	Voltage gain enhancement of KY converter **2013**,		3
74	A new bridgeless buck PFC rectifier. *International Journal of Circuit Theory and Applications*, **2017**, 45, 707-719	2	3
73	Implementation of type III controller for KY converter based on PSIM **2015**,		3
72	High step-up converter based on coupling inductor and bootstrap capacitors with active clamping **2012**,		3
71	KY converter with zero voltage switching **2010**,		3
70	A Simple Resonant Voltage Divider **2009**,		3

69	Soft Switching of Negative-Output KY Buck Converter **2009**,		3
68	A Novel Dimming Technique for Cold Cathode Fluorescent Lamp. *IEEE Transactions on Industry Applications*, **2010**, 46, 2196-2201	4.3	3
67	Topology exchange between KY converter and its derivative. *IEEE Applied Power Electronics Conference and Exposition*, **2008**,		3
66	A simple passive ZCS circuit for PFC converter. *IEEE Applied Power Electronics Conference and Exposition*, **2008**,		3
65	Design of a digitalized burn-in test plant **2008**,		3
64	A gate driver with negative and double positive output voltages under positive-voltage source. *IEEE Applied Power Electronics Conference and Exposition*, **2008**,		3
63	Applying FPGA Control with ADC-Free Sampling to Multi-Output Forward Converter. *Electronics (Switzerland)*, **2021**, 10, 1010	2.6	3
62	Non-isolated large step-down voltage conversion ratio converter with non-pulsating output current. *International Journal of Circuit Theory and Applications*, **2016**, 44, 1657-1684	2	3
61	Thermoelectric Energy Conversion System With Multiple Inputs. *IEEE Transactions on Power Electronics*, **2020**, 35, 1603-1621	7.2	3
60	Series-type charger with output voltage automatically regulated and hot swap. *International Journal of Circuit Theory and Applications*, **2019**, 47, 633-639	2	2
59	Thermoelectric Conversion System With Dimmable LED Lighting. *IEEE Access*, **2019**, 7, 42396-42407	3.5	2
58	Simple Structure of Soft Switching for Boost Converter. *Energies*, **2020**, 13, 5448	3.1	2
57	Applying module-link method to multiple power supplies paralleled **2017**,		2
56	A fast response voltage control circuit for automotive alternator system **2016**,		2
55	Ultra high step-down converter **2014**,		2
54	Improvement in voltage conversion ratio for step up converter established by KY and buck-boost converters based on coupled inductor. *IET Power Electronics*, **2014**, 7, 1457-1465	2.2	2
53	A novel high step-up converter **2013**,		2
52	Digital control of isolated two-stage DC-DC converter with synchronization considered **2009**,		2

51	Performance Enhancement of Boost Converter Based on Linear-to-Nonlinear Translator **2009**,		2
50	On the design of fuzzy-controlled KY converter **2009**,		2
49	Dual-output buck-boost converter with positive and negative output voltages under single positive voltage source fed **2010**,		2
48	Estimation of individual leakage inductances of a transformer based on measurements **2008**,		2
47	A Forward Converter Having an FPGA-based PID Controller with Parameters On-ine Tuned		2
46	Improved KY Converter. *Journal of Electrical Engineering and Technology*, **2015**, 10, 1578-1588	1.4	2
45	ACDC Flyback Dimmable LED Driver with Low-Frequency Current Ripple Reduced and Power Dissipation in BJT Linearly Proportional to LED Current. *Energies*, **2020**, 13, 4270	3.1	2
44	Implementation of a Dimmable LED Driver with Extendable Parallel Structure and Capacitive Current Sharing. *Applied Sciences (Switzerland)*, **2019**, 9, 5177	2.6	2
43	Active Clamp Boost Converter with Blanking Time Tuning Considered. *Applied Sciences (Switzerland)*, **2021**, 11, 860	2.6	2
42	Analysis and design of type 3 compensator for the buck converter based on PSIM **2018**,		2
41	Minimization of Output Voltage Ripple of Two-Phase Interleaved Buck Converter with Active Clamp. *Energies*, **2021**, 14, 5215	3.1	2
40	Performance comparison between tapped-inductor buck converter and ultrahigh step-down converter. *International Journal of Electronics Letters*, **2017**, 5, 475-490	0.6	1
39	Bridgeless Buck-Boost PFC Rectifier with Positive Output Voltage. *Applied Sciences (Switzerland)*, **2019**, 9, 3483	2.6	1
38	**2015**,		1
37	PFC Converter with Improved Input Current Zero-crossing Distortion. *Electric Power Components and Systems*, **2017**, 45, 1329-1338	1	1
36	Three-level boost converter with zero voltage transition. *Journal of Engineering*, **2017**, 2017, 354-361	0.7	1
35	Study and simulation on control-to-output transfer function of KY boost converter **2015**,		1
34	A gate driver with output voltage equal to triple input voltage **2012**,		1

33	A novel inductor-coupled step-up-down converter **2012**,		1
32	A Buck Resonant Voltage Divider With Bidirectional Operation Considered. *IEEE Transactions on Industry Applications*, **2013**, 49, 1566-1576	4.3	1
31	Fully-digitalized implementation of PFC rectifier in CCM without ADC **2011**,		1
30	Applying DSP-based two-stage AC-DC converter to drive SRM with sampling and startup considered **2009**,		1
29	High step-up converter based on two charge pumps with one inductor inserted **2011**,		1
28	A buck resonant voltage divider with bidirectional operation considered **2011**,		1
27	A novel gate driver with output having positive input voltage and negative double input voltage **2012**,		1
26	A novel negative-output KY boost converter **2009**,		1
25	Negative-output KY buck-boost converter **2009**,		1
24	2nd-order derived KY converters: 1-plus-2D and 2-plus-D converters **2008**,		1
23	A Novel Gate Driver with Output Voltage Having Double Source Voltage **2007**,		1
22	A Novel Gate Driver with Positive and Negative Output Voltages **2007**,		1
21	Feedforward Compensation for One-Comparator Counter-Based PWM Control Based on FPGA **2007**,		1
20	Improvement of Transient Load Response for the ZVS Buck Converter Using FPGA-based Control. *IEEE Applied Power Electronics Conference and Exposition*, **2007**,		1
19	Improvement of the Unloading Transient Response for the PFM-controlled Buck-type Converter **2006**,		1
18	LLC LED Driver with Current-Sharing Capacitor Having Low Voltage Stress. *Energies*, **2021**, 14, 112	3.1	1
17	Improvement in Voltage Conversion Ratio of Ultrahigh Step-Down Converter. *Energies*, **2019**, 12, 3896	3.1	1
16	ZETA Dual-Loop Control Based on Voltage Across Transferring Capacitor Sensed **2019**,		1

15	Light-Load Efficiency Improvement for Ultrahigh Step-Down Converter Based on Skip Mode. *Electronics (Switzerland)*, **2021**, 10, 355	2.6	1
14	Series-Based AC LED Driver with Efficiency Improved. *Electric Power Components and Systems*, **2018**, 46, 637-646	1	1
13	Bridgeless Isolated AC LED Driver. *Processes*, **2021**, 9, 1173	2.9	1
12	Efficiency improvement for LLC converter based on automatic tuning of blanking time. *International Journal of Circuit Theory and Applications*, **2019**, 47, 1477-1501	2	0
11	Enhancement of System Stability Based on PWFM. *Electronics (Switzerland)*, **2019**, 8, 399	2.6	0
10	Development of Four-Channel Buck-Type LED Driver with Automatic Current Sharing. *Energies*, **2021**, 14, 7844	3.1	0
9	Soft Switching of Non-Isolated Buck-Type Converter with Common-Ground Switch. *Energies*, **2021**, 14, 5290	3.1	0
8	A Single-Voltage-Source Class-D Boost Multi-Level Inverter with Self-Balanced Capacitors. *Energies*, **2022**, 15, 4082	3.1	0
7	Improvement in Voltage Gain of Interleaved High Step-Down Converter. *Energies*, **2020**, 13, 1019	3.1	
6	An extensible two-phase high voltage-boosting converter with automatic current balance. *International Journal of Circuit Theory and Applications*, **2018**, 46, 483-504	2	
5	Reduction of low-frequency output voltage ripple for isolated high-power-factor ACDC converter. *International Journal of Electronics Letters*, **2017**, 5, 349-357	0.6	
4	Coupled-Inductor-Based High-Step-Down-Ratio Converter with Output Current Ripple Reduction. *Electric Power Components and Systems*, **2017**, 45, 1599-1606	1	
3	Dynamic Response Improvement Based on PID Control. *IEEJ Journal of Industry Applications*, **2016**, 5, 26-31	0.7	
2	An Isolated High Step-Up Converter with Non-Pulsating Input Current for Renewable Energy Applications. *Journal of Power Electronics*, **2016**, 16, 1277-1287	0.9	
1	Development of a Thermal Energy Harvesting Converter with Multiple Inputs and an Isolated Output. *Energies*, **2022**, 15, 273	3.1	