# Kuo-Ing Hwu

## List of Publications by Year in Descending Order



| | | | |
|---|---|---|---|
| 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 | Development of a Thermal Energy Harvesting Converter with Multiple Inputs and an Isolated Output. *Energies*, **2022**, 15, 273 | 3.1 | |
| 157 | A Single-Voltage-Source Class-D Boost Multi-Level Inverter with Self-Balanced Capacitors. *Energies*, **2022**, 15, 4082 | 3.1 | 0 |
| 156 | Development of Four-Channel Buck-Type LED Driver with Automatic Current Sharing. *Energies*, **2021**, 14, 7844 | 3.1 | 0 |
| 155 | LLC LED Driver with Current-Sharing Capacitor Having Low Voltage Stress. *Energies*, **2021**, 14, 112 | 3.1 | 1 |
| 154 | Applying FPGA Control with ADC-Free Sampling to Multi-Output Forward Converter. *Electronics (Switzerland)*, **2021**, 10, 1010 | 2.6 | 3 |
| 153 | Active Clamp Boost Converter with Blanking Time Tuning Considered. *Applied Sciences (Switzerland)*, **2021**, 11, 860 | 2.6 | 2 |
| 152 | Light-Load Efficiency Improvement for Ultrahigh Step-Down Converter Based on Skip Mode. *Electronics (Switzerland)*, **2021**, 10, 355 | 2.6 | 1 |
| 151 | Bridgeless Isolated AC LED Driver. *Processes*, **2021**, 9, 1173 | 2.9 | 1 |
| 150 | Soft Switching of Non-Isolated Buck-Type Converter with Common-Ground Switch. *Energies*, **2021**, 14, 5290 | 3.1 | 0 |
| 149 | Minimization of Output Voltage Ripple of Two-Phase Interleaved Buck Converter with Active Clamp. *Energies*, **2021**, 14, 5215 | 3.1 | 2 |
| 148 | Simple Structure of Soft Switching for Boost Converter. *Energies*, **2020**, 13, 5448 | 3.1 | 2 |
| 147 | Improvement in Voltage Gain of Interleaved High Step-Down Converter. *Energies*, **2020**, 13, 1019 | 3.1 | |
| 146 | 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 |
| 145 | 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 |
| 144 | Thermoelectric Energy Conversion System With Multiple Inputs. *IEEE Transactions on Power Electronics*, **2020**, 35, 1603-1621 | 7.2 | 3 |
| 143 | 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 |
| 142 | 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 |

| | | | |
|---|---|---|---|
| 141 | Bridgeless Buck-Boost PFC Rectifier with Positive Output Voltage. *Applied Sciences (Switzerland)*, **2019**, 9, 3483 | 2.6 | 1 |
| 140 | Series-type charger with output voltage automatically regulated and hot swap. *International Journal of Circuit Theory and Applications*, **2019**, 47, 633-639 | 2 | 2 |
| 139 | Thermoelectric Conversion System With Dimmable LED Lighting. *IEEE Access*, **2019**, 7, 42396-42407 | 3.5 | 2 |
| 138 | Enhancement of System Stability Based on PWFM. *Electronics (Switzerland)*, **2019**, 8, 399 | 2.6 | 0 |
| 137 | Improvement in Voltage Conversion Ratio of Ultrahigh Step-Down Converter. *Energies*, **2019**, 12, 3896 | 3.1 | 1 |
| 136 | Implementation of a Dimmable LED Driver with Extendable Parallel Structure and Capacitive Current Sharing. *Applied Sciences (Switzerland)*, **2019**, 9, 5177 | 2.6 | 2 |
| 135 | ZETA Dual-Loop Control Based on Voltage Across Transferring Capacitor Sensed **2019**, | | 1 |
| 134 | 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 |
| 133 | Nonisolated Two-Phase Interleaved LED Driver With Capacitive Current Sharing. *IEEE Transactions on Power Electronics*, **2018**, 33, 2295-2306 | 7.2 | 12 |
| 132 | An extensible two-phase high voltage-boosting converter with automatic current balance. *International Journal of Circuit Theory and Applications*, **2018**, 46, 483-504 | 2 | |
| 131 | Series-Based AC LED Driver with Efficiency Improved. *Electric Power Components and Systems*, **2018** , 46, 637-646 | 1 | 1 |
| 130 | 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 |
| 129 | Expandable two-channel LED driver with galvanic isolation and automatic current balance. *IET Power Electronics*, **2018**, 11, 825-833 | 2.2 | 8 |
| 128 | Analysis and design of type 3 compensator for the buck converter based on PSIM **2018**, | | 2 |
| 127 | Performance comparison between tapped-inductor buck converter and ultrahigh step-down converter. *International Journal of Electronics Letters*, **2017**, 5, 475-490 | 0.6 | 1 |
| 126 | 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 |
| 125 | Input-Current-Ripple-Free Two-Channel LED Driver. *IEEE Transactions on Industrial Electronics*, **2017**, 64, 5865-5874 | 8.9 | 5 |
| 124 | Applying module-link method to multiple power supplies paralleled **2017**, | | 2 |

| | | | |
|---|---|---|---|
| 123 | PFC Converter with Improved Input Current Zero-crossing Distortion. *Electric Power Components and Systems*, **2017**, 45, 1329-1338 | 1 | 1 |
| 122 | Ultrahigh step-down converter with active clamp **2017**, | | 4 |
| 121 | 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 |
| 120 | A new bridgeless buck PFC rectifier. *International Journal of Circuit Theory and Applications*, **2017**, 45, 707-719 | 2 | 3 |
| 119 | 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 | |
| 118 | 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 |
| 117 | Coupled-Inductor-Based High-Step-Down-Ratio Converter with Output Current Ripple Reduction. *Electric Power Components and Systems*, **2017**, 45, 1599-1606 | 1 | |
| 116 | Three-level boost converter with zero voltage transition. *Journal of Engineering*, **2017**, 2017, 354-361 | 0.7 | 1 |
| 115 | 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 |
| 114 | A fast response voltage control circuit for automotive alternator system **2016**, | | 2 |
| 113 | . *IEEE Transactions on Industrial Electronics*, **2016**, 63, 6064-6072 | 8.9 | 22 |
| 112 | Isolated high voltage-boosting converter derived from forward converter. *International Journal of Circuit Theory and Applications*, **2016**, 44, 280-304 | 2 | 6 |
| 111 | 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 |
| 110 | Dynamic Response Improvement Based on PID Control. *IEEJ Journal of Industry Applications*, **2016**, 5, 26-31 | 0.7 | |
| 109 | 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 | |
| 108 | Light-load efficiency improvement for flyback converter based on hybrid clamp circuit **2016**, | | 4 |
| 107 | Dimmable LED Driver Based on Twin-Bus Converter and Differential-Mode Transformer. *Journal of Display Technology*, **2016**, 12, 1122-1129 | | 4 |
| 106 | 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 |

| | | | |
|---|---|---|---|
| 105 | DC-DC converter with large step-down voltage conversion ratio **2016**, | | 4 |
| 104 | An isolated high step-up converter with continuous input current and LC snubber **2016**, | | 6 |
| 103 | Dimmable AC LED Driver Based on Series Drive. *Journal of Display Technology*, **2016**, 12, 1097-1105 | | 5 |
| 102 | Analysis and design of a high-step-down ratio resonant converter. *IET Power Electronics*, **2016**, 9, 864-873 | 2.2 | 7 |
| 101 | Bidirectional Operation of High Step-Down Converter. *IEEE Transactions on Power Electronics*, **2015**, 30, 6829-6844 | 7.2 | 23 |
| 100 | Improvement on voltage gain for KY converter. *IET Power Electronics*, **2015**, 8, 361-370 | 2.2 | 4 |
| 99 | Full-Digital AC-DC Converter With PFC Based on Counting. *IEEE Transactions on Industrial Informatics*, **2015**, 11, 122-131 | 11.9 | 11 |
| 98 | Analysis, design and derivation of a two-phase converter. *IET Power Electronics*, **2015**, 8, 1987-1995 | 2.2 | 23 |
| 97 | Time-sharing PWM control scheme for isolated multi-output DCDC converter. *Electronics Letters*, **2015**, 51, 1446-1447 | 1.1 | 3 |
| 96 | **2015**, | | 1 |
| 95 | Ultrahigh Step-Down Converter. *IEEE Transactions on Power Electronics*, **2015**, 30, 3262-3274 | 7.2 | 53 |
| 94 | 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 |
| 93 | Implementation of type III controller for KY converter based on PSIM **2015**, | | 3 |
| 92 | High-step-up single-switch DCDC converter with low voltage spike. *IET Power Electronics*, **2015**, 8, 2504-2510 | 2.2 | 25 |
| 91 | Step-down converter with wide voltage conversion ratio. *IET Power Electronics*, **2015**, 8, 2136-2144 | 2.2 | 14 |
| 90 | Study and simulation on control-to-output transfer function of KY boost converter **2015**, | | 1 |
| 89 | Improved KY Converter. *Journal of Electrical Engineering and Technology*, **2015**, 10, 1578-1588 | 1.4 | 2 |
| 88 | 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 |

| | | | |
|---|---|---|---|
| 87 | 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 |
| 86 | A Dimmable LED Driver Based on Current Balancing Transformer With Magnetizing Energy Recycling Considered. *Journal of Display Technology*, **2014**, 10, 388-395 | | 24 |
| 85 | Light-emitting diode driver with low-frequency ripple suppressed and dimming efficiency improved. *IET Power Electronics*, **2014**, 7, 105-113 | 2.2 | 25 |
| 84 | Ultra high step-down converter **2014**, | | 2 |
| 83 | 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 |
| 82 | Dimmable AC LED Driver With Efficiency Improved Based on Switched LED Module. *Journal of Display Technology*, **2014**, 10, 171-181 | | 11 |
| 81 | Isolated step-up converter based on flyback converter and charge pumps. *IET Power Electronics*, **2014**, 7, 2250-2257 | 2.2 | 27 |
| 80 | 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 |
| 79 | 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 |
| 78 | Voltage gain enhancement of KY converter **2013**, | | 3 |
| 77 | Inductor saturation detection with anti-saturation control strategy applied **2013**, | | 5 |
| 76 | A novel high step-up converter **2013**, | | 2 |
| 75 | 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 |
| 74 | High Voltage-Boosting Converters Based on Bootstrap Capacitors and Boost Inductors. *IEEE Transactions on Industrial Electronics*, **2013**, 60, 2178-2193 | 8.9 | 27 |
| 73 | 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 |
| 72 | A Buck Resonant Voltage Divider With Bidirectional Operation Considered. *IEEE Transactions on Industry Applications*, **2013**, 49, 1566-1576 | 4.3 | 1 |
| 71 | Dimmable driver for light-emitting diode with total harmonic distortion improved. *IET Power Electronics*, **2012**, 5, 59 | 2.2 | 15 |
| 70 | Voltage-boosting converters with hybrid energy pumping. *IET Power Electronics*, **2012**, 5, 185 | 2.2 | 22 |

| | | | |
|---|---|---|---|
| 69 | Current Sharing Control Strategy Based on Phase Link. *IEEE Transactions on Industrial Electronics*, **2012**, 59, 701-713 | 8.9 | 15 |
| 68 | Fully Digitalized Implementation of PFC Rectifier in CCM Without ADC. *IEEE Transactions on Power Electronics*, **2012**, 27, 4021-4029 | 7.2 | 21 |
| 67 | High step-up converter based on coupling inductor and bootstrap capacitors with active clamping **2012**, | | 3 |
| 66 | A gate driver with output voltage equal to triple input voltage **2012**, | | 1 |
| 65 | High Step-Up Converter Based on Charge Pump and Boost Converter. *IEEE Transactions on Power Electronics*, **2012**, 27, 2484-2494 | 7.2 | 58 |
| 64 | Resonant Voltage Divider With Bidirectional Operation and Startup Considered. *IEEE Transactions on Power Electronics*, **2012**, 27, 1996-2006 | 7.2 | 14 |
| 63 | A LED current balancing driver with magnetizing inductance energy recycling considered **2012**, | | 13 |
| 62 | A novel inductor-coupled step-up-down converter **2012**, | | 1 |
| 61 | A Novel Buck-Boost Converter Combining KY and Buck Converters. *IEEE Transactions on Power Electronics*, **2012**, 27, 2236-2241 | 7.2 | 87 |
| 60 | A novel gate driver with output having positive input voltage and negative double input voltage **2012**, | | 1 |
| 59 | A high brightness light-emitting diode driver with power factor and total harmonic distortion improved **2011**, | | 8 |
| 58 | Step-up converter combining KY and buck-boost converters. *Electronics Letters*, **2011**, 47, 722 | 1.1 | 27 |
| 57 | 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 |
| 56 | Applying Differential-Mode Transformer to Current Sharing With Current Ripple Considered. *IEEE Transactions on Industrial Electronics*, **2011**, 58, 2755-2771 | 8.9 | 9 |
| 55 | Powering LED Using High-Efficiency SR Flyback Converter. *IEEE Transactions on Industry Applications*, **2011**, 47, 376-386 | 4.3 | 49 |
| 54 | Fully-digitalized implementation of PFC rectifier in CCM without ADC **2011**, | | 1 |
| 53 | A simple step-up converter **2011**, | | 4 |
| 52 | High step-up converter based on two charge pumps with one inductor inserted **2011**, | | 1 |

| | | | |
|---|---|---|---|
| 51 | A buck resonant voltage divider with bidirectional operation considered **2011**, | | 1 |
| 50 | LED dimming with efficiency considered. *Electronics Letters*, **2011**, 47, 457 | 1.1 | 9 |
| 49 | A KY Boost Converter. *IEEE Transactions on Power Electronics*, **2010**, 25, 2699-2703 | 7.2 | 56 |
| 48 | 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 |
| 47 | Applying one-comparator counter-based sampling to current sharing control of multi-channel LED strings **2010**, | | 24 |
| 46 | Inductor-coupled KY boost converter. *Electronics Letters*, **2010**, 46, 1624 | 1.1 | 27 |
| 45 | 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 |
| 44 | KY converter with zero voltage switching **2010**, | | 3 |
| 43 | High step-up converter based on charge pump and boost converter **2010**, | | 5 |
| 42 | A Novel Dimming Technique for Cold Cathode Fluorescent Lamp. *IEEE Transactions on Industry Applications*, **2010**, 46, 2196-2201 | 4.3 | 3 |
| 41 | Dual-output buck-boost converter with positive and negative output voltages under single positive voltage source fed **2010**, | | 2 |
| 40 | A Simple Resonant Voltage Divider **2009**, | | 3 |
| 39 | Applying DSP-based two-stage AC-DC converter to drive SRM with sampling and startup considered **2009**, | | 1 |
| 38 | Digital control of isolated two-stage DC-DC converter with synchronization considered **2009**, | | 2 |
| 37 | Improvement of one-comparator counter-based PFM control for DC-DC converter **2009**, | | 5 |
| 36 | A novel negative-output KY buck-boost converter **2009**, | | 6 |
| 35 | Two Types of KY Buck–Boost Converters. *IEEE Transactions on Industrial Electronics*, **2009**, 56, 2970-2980 | 8.9 | 59 |
| 34 | Negative-output KY boost converter **2009**, | | 4 |

| | | | |
|---|---|---|---|
| 33 | KY Converter and Its Derivatives. *IEEE Transactions on Power Electronics*, **2009**, 24, 128-137 | 7.2 | 90 |
| 32 | Bidirectional control of inverse KY converter **2009**, | | 4 |
| 31 | A Simple Current-Balancing Converter for LED Lighting **2009**, | | 61 |
| 30 | Powering LED Using High-Efficiency SR Flyback Converter **2009**, | | 8 |
| 29 | Performance Enhancement of Boost Converter Based on Linear-to-Nonlinear Translator **2009**, | | 2 |
| 28 | An Interleaved ACDC Converter Based on Current Tracking. *IEEE Transactions on Industrial Electronics*, **2009**, 56, 1456-1463 | 8.9 | 37 |
| 27 | On the design of fuzzy-controlled KY converter **2009**, | | 2 |
| 26 | Soft Switching of Negative-Output KY Buck Converter **2009**, | | 3 |
| 25 | A novel negative-output KY boost converter **2009**, | | 1 |
| 24 | Negative-output KY buck-boost converter **2009**, | | 1 |
| 23 | Simple design of a soft-switching buck converter **2008**, | | 5 |
| 22 | 2nd-order derived KY converters: 1-plus-2D and 2-plus-D converters **2008**, | | 1 |
| 21 | Soft switching of KY converter. *IEEE Applied Power Electronics Conference and Exposition*, **2008**, | | 4 |
| 20 | Estimation of individual leakage inductances of a transformer based on measurements **2008**, | | 2 |
| 19 | Topology exchange between KY converter and its derivative. *IEEE Applied Power Electronics Conference and Exposition*, **2008**, | | 3 |
| 18 | A Novel voltage-boosting converter with passive voltage clamping **2008**, | | 6 |
| 17 | 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 |
| 16 | A simple passive ZCS circuit for PFC converter. *IEEE Applied Power Electronics Conference and Exposition*, **2008**, | | 3 |

| | | |
|---|---|---|
| 15 | Design of a digitalized burn-in test plant **2008**, | 3 |
| 14 | A novel voltage-bucking/boosting converter: KY buck-boost converter **2008**, | 5 |
| 13 | A gate driver with negative and double positive output voltages under positive-voltage source. *IEEE Applied Power Electronics Conference and Exposition*, **2008**, | 3 |
| 12 | A Novel Gate Driver with Output Voltage Having Double Source Voltage **2007**, | 1 |
| 11 | 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 |
| 10 | A Novel Gate Driver with Positive and Negative Output Voltages **2007**, | 1 |
| 9 | Feedforward Compensation for One-Comparator Counter-Based PWM Control Based on FPGA **2007**, | 1 |
| 8 | A Novel Dimming Technique for Cold Cathode Fluorescent Lamp **2007**, | 6 |
| 7 | Improvement of Transient Load Response for the ZVS Buck Converter Using FPGA-based Control. *IEEE Applied Power Electronics Conference and Exposition*, **2007**, | 1 |
| 6 | A Novel Voltage-boosting Converter: KY Converter. *IEEE Applied Power Electronics Conference and Exposition*, **2007**, | 15 |
| 5 | Improvement of One-comparator Counter-based PWM Control by Applying a Sawtoothed Wave Injection Method. *IEEE Applied Power Electronics Conference and Exposition*, **2007**, | 11 |
| 4 | Improvement of the Unloading Transient Response for the PFM-controlled Buck-type Converter **2006**, | 1 |
| 3 | Applying a Counter-based PFM Control Strategy to an FPGA-based SR Forward Converter **2006**, | 5 |
| 2 | Applying a counter-based PWM control scheme to an FPGA-based SR forward converter | 32 |
| 1 | A Forward Converter Having an FPGA-based PID Controller with Parameters On-ine Tuned | 2 |