

# Khurram Afridi

## List of Publications by Citations

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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.

96  
papers

1,264  
citations

20  
h-index

30  
g-index

117  
ext. papers

1,671  
ext. citations

6.6  
avg, IF

5.1  
L-index

#	Paper	IF	Citations
96	Stacked Switched Capacitor Energy Buffer Architecture. <i>IEEE Transactions on Power Electronics</i> , <b>2013</b> , 28, 5183-5195	7.2	67
95	Investigation of power transfer density enhancement in large air-gap capacitive wireless power transfer systems <b>2015</b> ,		53
94	. <i>IEEE Transactions on Power Electronics</i> , <b>2016</b> , 31, 560-580	7.2	52
93	Multitrack Power Conversion Architecture. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 325-340	7.2	45
92	High Efficiency Resonant DC/DC Converter Utilizing a Resistance Compression Network. <i>IEEE Transactions on Power Electronics</i> , <b>2014</b> , 29, 4126-4135	7.2	41
91	Design of Class E Resonant Rectifiers and Diode Evaluation for VHF Power Conversion. <i>IEEE Transactions on Power Electronics</i> , <b>2015</b> , 30, 4960-4972	7.2	39
90	High-performance large air-gap capacitive wireless power transfer system for electric vehicle charging <b>2017</b> ,		37
89	. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , <b>2016</b> , 4, 335-343	5.6	36
88	A New Design Approach to Mitigating the Effect of Parasitics in Capacitive Wireless Power Transfer Systems for Electric Vehicle Charging. <i>IEEE Transactions on Transportation Electrification</i> , <b>2019</b> , 5, 1040-1059	7.6	33
87	Design of efficient matching networks for capacitive wireless power transfer systems <b>2016</b> ,		33
86	High-power-transfer-density capacitive wireless power transfer system for electric vehicle charging <b>2017</b> ,		33
85	Optimal Design of Grid-Connected PEV Charging Systems With Integrated Distributed Resources. <i>IEEE Transactions on Smart Grid</i> , <b>2013</b> , 4, 956-967	10.7	33
84	Improved Design Optimization for High-Efficiency Matching Networks. <i>IEEE Transactions on Power Electronics</i> , <b>2018</b> , 33, 37-50	7.2	32
83	High-Performance 13.56-MHz Large Air-Gap Capacitive Wireless Power Transfer System for Electric Vehicle Charging <b>2018</b> ,		28
82	Impedance Control Network Resonant DCDC Converter for Wide-Range High-Efficiency Operation. <i>IEEE Transactions on Power Electronics</i> , <b>2015</b> , 1-1	7.2	27
81	An empirical analysis of the hydropower portfolio in Pakistan. <i>Energy Policy</i> , <b>2012</b> , 50, 228-241	7.2	27
80	Near-field capacitive wireless power transfer array with external field cancellation <b>2016</b> ,		26

79	Kilowatt-scale large air-gap multi-modular capacitive wireless power transfer system for electric vehicle charging <b>2018,</b>		25
78	Design tradeoffs in a multi-modular capacitive wireless power transfer system <b>2016,</b>		24
77	A Multilevel Energy Buffer and Voltage Modulator for Grid-Interfaced Microinverters. <i>IEEE Transactions on Power Electronics</i> , <b>2015</b> , 30, 1203-1219	7.2	22
76	. <i>IEEE Transactions on Industry Applications</i> , <b>2014</b> , 50, 1141-1149	4.3	20
75	Energy Density Enhancement of Stacked Switched Capacitor Energy Buffers Through Capacitance Ratio Optimization. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 6363-6380	7.2	17
74	Active variable reactance rectifier $\square$ A new approach to compensating for coupling variations in wireless power transfer systems <b>2017,</b>		17
73	E-Mobility $\square$ Advancements and Challenges. <i>IEEE Access</i> , <b>2019</b> , 7, 165226-165240	3.5	17
72	Multi-objective optimization of capacitive wireless power transfer systems for electric vehicle charging <b>2017,</b>		16
71	Step-Down Impedance Control Network Resonant DCDC Converter Utilizing an Enhanced Phase-Shift Control for Wide-Input-Range Operation. <i>IEEE Transactions on Industry Applications</i> , <b>2018</b> , 54, 4523-4536	4.3	16
70	An electrolytic-free offline LED driver with a ceramic-capacitor-based compact SSC energy buffer <b>2014,</b>		16
69	High power transfer density and high efficiency 100 MHz capacitive wireless power transfer system <b>2015,</b>		15
68	<b>2018,</b>		15
67	High-Performance Megahertz-Frequency Resonant DCDC Converter for Automotive LED Driver Applications. <i>IEEE Transactions on Power Electronics</i> , <b>2020</b> , 35, 10396-10412	7.2	14
66	Improved design optimization of efficient matching networks for capacitive wireless power transfer systems <b>2018,</b>		14
65	<b>2018,</b>		14
64	GaN-Based High-Power-Density Electrolytic-Free Universal Input LED Driver. <i>IEEE Transactions on Industry Applications</i> , <b>2018</b> , 54, 3890-3901	4.3	14
63	Design of High-Efficiency Matching Networks for Capacitive Wireless Power Transfer Systems. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , <b>2020</b> , 1-1	5.6	14
62	High-Efficiency High-Power-Transfer-Density Capacitive Wireless Power Transfer System for Electric Vehicle Charging Utilizing Semi-Toroidal Interleaved-Foil Coupled Inductors <b>2019,</b>		13

61	Impedance control network resonant step-down DC-DC converter architecture <b>2015</b> ,		13
60	Active Variable Reactance Rectifier—A New Approach to Compensating for Coupling Variations in Wireless Power Transfer Systems. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , <b>2020</b> , 8, 2022-2040	5.6	13
59	A Compact Electrolytic-Free Two-Stage Universal Input Offline LED Driver With Volume-Optimized SSC Energy Buffer. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , <b>2018</b> , 6, 1116-1130	5.6	12
58	A very-high-power-transfer-density GaN-based capacitive wireless power transfer system <b>2017</b> ,		12
57	Megahertz-frequency isolated resonant dc-dc converter using impedance control network for high-efficiency wide-range operation <b>2015</b> ,		11
56	A high power density single-phase inverter using stacked switched capacitor energy buffer <b>2016</b> ,		10
55	Improved capacitance ratio optimization methodology for stacked switched capacitor energy buffers <b>2015</b> ,		9
54	Impedance control network resonant dc-dc converter for wide-range high-efficiency operation <b>2015</b> ,		9
53	Design and Evaluation of a Reconfigurable Stacked Active Bridge DCDC Converter for Efficient Wide Load Range Operation. <i>IEEE Transactions on Power Electronics</i> , <b>2018</b> , 33, 10428-10448	7.2	9
52	Energy density enhancement of unipolar SSC energy buffers through capacitance ratio optimization <b>2014</b> ,		9
51	High-Performance Multi-MHz Capacitive Wireless Power Transfer System for EV Charging Utilizing Interleaved-Foil Coupled Inductors. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , <b>2020</b> , 1-1	5.6	9
50	High efficiency impedance control network resonant DC-DC converter with optimized startup control <b>2015</b> ,		8
49	A compact electrolytic-free two-stage universal input offline LED driver <b>2016</b> ,		8
48	Design of resistive-input class E resonant rectifiers for variable-power operation <b>2013</b> ,		8
47	Single-stage isolated 48V-to-1.8V point-of-load converter utilizing an impedance control network and integrated magnetic structures <b>2017</b> ,		8
46	High-Efficiency Impedance Control Network Resonant DCDC Converter With Optimized Startup Control. <i>IEEE Transactions on Industry Applications</i> , <b>2017</b> , 53, 3880-3889	4.3	7
45	A multilevel energy buffer and voltage modulator for grid-interfaced micro-inverters <b>2013</b> ,		7
44	High efficiency resonant dc/dc converter utilizing a resistance compression network <b>2013</b> ,		7

43	GaN-based high-power-density electrolytic-free universal input LED driver <b>2017</b> ,		6
42	High power density impedance control network DC-DC converter utilizing an integrated magnetic structure <b>2016</b> ,		6
41	Power Density and Efficiency Enhancement in ICN DCDC Converters Using Topology Morphing Control. <i>IEEE Transactions on Power Electronics</i> , <b>2019</b> , 34, 1881-1900	7.2	6
40	A control architecture for low current distortion in bridgeless boost power factor correction rectifiers <b>2017</b> ,		5
39	High-frequency ZVS $\pi$ k converter for automotive LED driver applications using planar integrated magnetics <b>2017</b> ,		5
38	Control of a GaN-Based High-Power-Density Single-Phase Online Uninterruptible Power Supply <b>2019</b> ,		5
37	Enhanced-accuracy augmented state-space approach to steady-state modeling of resonant converters <b>2015</b> ,		5
36	A Step-Superposition-Based Analysis Approach to Modeling Resonant Converters. <i>IEEE Transactions on Power Electronics</i> , <b>2018</b> , 33, 7148-7165	7.2	5
35	Capacitive wireless powering for electric vehicles with near-field phased arrays <b>2017</b> ,		5
34	A step-superposition based analysis approach to modeling resonant converters <b>2015</b> ,		5
33	A 3.75-kW High-Power-Transfer-Density Capacitive Wireless Charging System for EVs Utilizing Toroidal-Interleaved-Foil Coupled Inductors <b>2020</b> ,		5
32	Improved design optimization approach for high efficiency matching networks <b>2016</b> ,		5
31	Power density and efficiency enhancement in impedance control network resonant DC-DC converters using topology morphing control <b>2016</b> ,		5
30	<b>2018</b> ,		5
29	A Single-Stage Isolated ACDC Converter Based on the Impedance Control Network Architecture. <i>IEEE Transactions on Power Electronics</i> , <b>2021</b> , 36, 10366-10382	7.2	5
28	Design of Class E resonant rectifiers and diode evaluation for VHF power conversion <b>2014</b> ,		4
27	Optimal design of grid-interfaced EV chargers with integrated generation <b>2012</b> ,		4
26	Enhanced bipolar Stacked Switched Capacitor energy buffers <b>2012</b> ,		4

25	Challenges and Solutions to Passive Rectification in Multi-MHz Frequency Capacitive Wireless Power Transfer Systems for Electric Vehicle Charging <b>2020</b> ,		4
24	Reduced-Fringing-Field Multi-MHz Capacitive Wireless Power Transfer System Utilizing a Metasurface-based Coupler <b>2020</b> ,		4
23	New design methodology for megahertz-frequency resonant dc-dc converters using impedance control network architecture <b>2016</b> ,		4
22	GaN-Based High-Power-Density ACDC/AC Converter for Single-Phase Transformerless Online Uninterruptible Power Supply. <i>IEEE Transactions on Power Electronics</i> , <b>2021</b> , 36, 13968-13984	7.2	4
21	A High-Power-Density Electrolytic-Free Offline LED Driver Utilizing a Merged Energy Buffer Architecture <b>2019</b> ,		3
20	Closed-Loop Control of LCL-T Resonant DC-DC Converter Operating as Automotive LED Driver <b>2019</b> ,		3
19	A High-Frequency LCLC Network Based Resonant DC-DC Converter for Automotive LED Driver Applications <b>2018</b> ,		3
18	A New Approach to Steady-State Modeling, Analysis, and Design of Power Converters. <i>IEEE Transactions on Power Electronics</i> , <b>2021</b> , 36, 12746-12768	7.2	3
17	Control of a Merged-Energy-Buffer based Two-Stage Electrolytic-Free Offline LED Driver <b>2019</b> ,		2
16	Multi-MHz Multi-kV Power Amplifier for Compact Particle Accelerators <b>2020</b> ,		2
15	Closed-loop Control of a Dynamic Capacitive Wireless Power Transfer System <b>2019</b> ,		2
14	A 50-MHz Multi-kV Power Amplifier for Ion-Beam Accelerator Utilizing an Optimized Toroidal Inductor <b>2020</b> ,		2
13	Step-down impedance control network resonant DC-DC converter utilizing an enhanced phase-shift control for wide-input-range operation <b>2016</b> ,		2
12	A High-Power-Density High-Efficiency Three-Level Buck Converter for Cellphone Battery Charging Applications <b>2018</b> ,		2
11	Beam power scale-up in micro-electromechanical systems based multi-beam ion accelerators. <i>Review of Scientific Instruments</i> , <b>2021</b> , 92, 103301	1.7	2
10	Power Factor Enhancement of a Soft-Switched Common-Neutral Single-DC-Bus Power Converter <b>2020</b> ,		1
9	Theoretical Limits of Power Transfer in Capacitive Wireless Charging Systems <b>2020</b> ,		1
8	A 27.12-MHz 10-kV Power Amplifier for Compact Particle Accelerators Utilizing an Optimized <b>2020</b> ,		1

7	A Large Air-Gap Multi-MHz Capacitive Wireless Power Transfer System Using Compact Charging Pads <b>2021</b> ,		1
6	High-Power-Density GaN-Based Single-Phase Online Uninterruptible Power Supply <b>2019</b> ,		1
5	A Multi-MHz Large Air-gap Capacitive Wireless Power Transfer System Utilizing an Active Variable Reactance Rectifier Suitable for Dynamic Electric Vehicle Charging <b>2019</b> ,		1
4	High-Performance Single-Stage Isolated 48V-to-1.8V Point-of-Load Converter Utilizing Impedance Control Network and Distributed Transformer <b>2018</b> ,		1
3	A High-Power-Density High-Efficiency Soft-Switched Single-Phase Universal Input to 28-V Isolated ACDC Converter Module Designed for Paralleled Operation. <i>IEEE Transactions on Power Electronics</i> , <b>2022</b> , 37, 8262-8280	7.2	1
2	Broadly-Applicable Accurate Analytical Steady-State Model for Class-E Inverters <b>2021</b> ,		1
1	Performance Enhancement of ICN-Based Single-Stage AC-DC Converters Using Reconfigurable Inverters. <i>IEEE Transactions on Power Electronics</i> , <b>2022</b> , 1-1	7.2	0