

# Manuel Arias

## List of Publications by Year in descending order

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87  
papers

1,742  
citations

394421

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315739

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docs citations

87  
times ranked

1488  
citing authors

#	ARTICLE	IF	CITATIONS
1	Design of a Soft-Switching Asymmetrical Half-Bridge Converter as Second Stage of an LED Driver for Street Lighting Application. IEEE Transactions on Power Electronics, 2012, 27, 1608-1621.	7.9	137
2	Modular Power Electronic Transformers: Modular Multilevel Converter Versus Cascaded H-Bridge Solutions. IEEE Industrial Electronics Magazine, 2016, 10, 6-19.	2.6	119
3	High-Efficiency LED Driver Without Electrolytic Capacitor for Street Lighting. IEEE Transactions on Industry Applications, 2013, 49, 127-137.	4.9	101
4	High-Efficiency Asymmetrical Half-Bridge Converter Without Electrolytic Capacitor for Low-Output-Voltage AC-DC LED Drivers. IEEE Transactions on Power Electronics, 2013, 28, 2539-2550.	7.9	95
5	On the Limit of the Output Capacitor Reduction in Power-Factor Correctors by Distorting the Line Input Current. IEEE Transactions on Power Electronics, 2012, 27, 1168-1176.	7.9	92
6	An Overview of the AC-DC and DC-DC Converters for LED Lighting Applications. Automatika, 2012, 53, 156-172.	2.0	90
7	Design-Oriented Analysis and Performance Evaluation of a Low-Cost High-Brightness LED Driver Based on Flyback Power Factor Corrector. IEEE Transactions on Industrial Electronics, 2013, 60, 2614-2626.	7.9	71
8	A Unity Power Factor Correction Preregulator With Fast Dynamic Response Based on a Low-Cost Microcontroller. IEEE Transactions on Power Electronics, 2008, 23, 635-642.	7.9	60
9	Practical Application of the Wave-Trap Concept in Battery-Cell Equalizers. IEEE Transactions on Power Electronics, 2015, 30, 5616-5631.	7.9	57
10	Tapped-Inductor Buck HB-LED AC-DC Driver Operating in Boundary Conduction Mode for Replacing Incandescent Bulb Lamps. IEEE Transactions on Power Electronics, 2012, 27, 4329-4337.	7.9	56
11	Experiences in the Application of Project-Based Learning in a Switching-Mode Power Supplies Course. IEEE Transactions on Education, 2012, 55, 69-77.	2.4	53
12	EMI Radiated Noise Measurement System Using the Source Reconstruction Technique. IEEE Transactions on Industrial Electronics, 2008, 55, 3258-3265.	7.9	49
13	Switching Performance Comparison of the SiC JFET and SiC JFET/Si MOSFET Cascode Configuration. IEEE Transactions on Power Electronics, 2014, 29, 2428-2440.	7.9	49
14	A Review on Flicker-Free AC-DC LED Drivers for Single-Phase and Three-Phase AC Power Grids. IEEE Transactions on Power Electronics, 2019, 34, 10035-10057.	7.9	48
15	Wear-Out Condition Monitoring of IGBT and mosfet Power Modules in Inverter Operation. IEEE Transactions on Industry Applications, 2019, 55, 6184-6192.	4.9	42
16	MMC based SST. , 2015, , .		39
17	Simplified Voltage-Sag Filler for Line-Interactive Uninterruptible Power Supplies. IEEE Transactions on Industrial Electronics, 2008, 55, 3005-3011.	7.9	37
18	Energization and Start-Up of CHB-Based Modular Three-Stage Solid-State Transformers. IEEE Transactions on Industry Applications, 2018, 54, 5483-5492.	4.9	34

#	ARTICLE	IF	CITATIONS
19	Optimized Design of a High Input-Voltage-Ripple-Rejection Converter for LED Lighting. IEEE Transactions on Power Electronics, 2018, 33, 5192-5205.	7.9	23
20	Auxiliary power supply based on a modular ISOP flyback configuration with very high input voltage. , 2016, , .		22
21	On the Maximum Bandwidth Attainable by Power Factor Correctors With a Standard Compensator. IEEE Transactions on Industry Applications, 2010, 46, 1485-1497.	4.9	20
22	Limitations of the Flyback Power Factor Corrector as a One-Stage Power Supply. , 2007, , .		18
23	A project-based learning approach to teaching power electronics: Difficulties in the application of Project-Based Learning in a subject of Switching-Mode Power Supplies. , 2010, , .		16
24	An ACâ€“DC PFC Single-Stage Dual Inductor Current-Fed Pushâ€“Pull for HB-LED Lighting Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 255-266.	5.4	16
25	An Electrolytic Capacitorless Modular Three-Phase ACâ€“DC LED Driver Based on Summing the Light Output of Each Phase. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 2255-2270.	5.4	15
26	The Voltage-Controlled Compensation Ramp: A Waveshaping Technique for Power Factor Correctors. IEEE Transactions on Industry Applications, 2009, 45, 1016-1027.	4.9	14
27	A Switching-Mode Power Supply Design Tool to Improve Learning in a Power Electronics Course. IEEE Transactions on Education, 2011, 54, 104-113.	2.4	14
28	Optimizing the efficiency of a dc-dc boost converter over 98% by using commercial SiC transistors with switching frequencies from 100 kHz to 1MHz. , 2013, , .		14
29	Small-Signal and Large-Signal Analysis of the Two-Transformer Asymmetrical Half-Bridge Converter Operating in Continuous Conduction Mode. IEEE Transactions on Power Electronics, 2014, 29, 3547-3562.	7.9	14
30	Simple droop voltage control system for parallel operation of UPS. IEEE Applied Power Electronics Conference and Exposition, 2008, , .	0.0	13
31	Self-Driven Synchronous Rectification System With Input Voltage Tracking for Converters With a Symmetrically Driven Transformer. IEEE Transactions on Industrial Electronics, 2009, 56, 1440-1445.	7.9	13
32	Elimination of the Transfer-Time Effects in Line-Interactive and Passive Standby UPSs by Means of a Small-Size Inverter. IEEE Transactions on Power Electronics, 2012, 27, 1468-1478.	7.9	13
33	Reduction of the output capacitor in Power Factor Correctors by distorting the line input current. , 2010, , .		12
34	A Novel Adaptive Synchronous Rectification System for Low Output Voltage Isolated Converters. IEEE Transactions on Industrial Electronics, 2011, 58, 3511-3520.	7.9	12
35	Analysis and Control of Electrolytic Capacitor-Less LED Driver Based on Harmonic Injection Technique. Energies, 2018, 11, 3030.	3.1	12
36	A very simple control strategy for power factor correctors driving high-brightness light-emitting diodes. IEEE Applied Power Electronics Conference and Exposition, 2008, , .	0.0	11

#	ARTICLE	IF	CITATIONS
37	A low-cost AC-DC High-Brightness LED driver with Power Factor Correction based on standard Peak-Current Mode Integrated Controllers. , 2010, , .		11
38	Digital Implementation of the Feedforward Loop of the Asymmetrical Half-Bridge Converter for LED Lighting Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 642-653.	5.4	11
39	Comparative analysis of modular multiport power electronic transformer topologies. , 2016, , .		11
40	Discontinuous PWM for Online Condition Monitoring of SiC Power Modules. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 323-330.	5.4	11
41	Radiated noise measurement system to estimate the EMI regulations compliance of a power electronic circuit. , 2007, , .		10
42	Using the Loss-Free Resistor Concept to Design a Simple AC-DC HB-LED Driver for Retrofit Lamp Applications. IEEE Transactions on Industry Applications, 2015, 51, 2300-2311.	4.9	10
43	On Supplying LEDs From Very Low DC Voltages With High-Frequency AC-LED Drivers. IEEE Transactions on Power Electronics, 2019, 34, 5711-5719.	7.9	10
44	High-efficiency LED driver without electrolytic capacitor for street lighting. , 2012, , .		9
45	Three phase converter with galvanic isolation based on Loss-Free Resistors for HB-LED lighting applications. , 2016, , .		8
46	Multicell Three-Phase AC-DC Driver for HB-LED Lighting Applications. IEEE Transactions on Industry Applications, 2017, 53, 3803-3813.	4.9	8
47	On the Maximum Bandwidth Attainable by Power Factor Correctors with a Standard Compensator. , 2009, , .		7
48	Active Input Current Shaper Without an Electrolytic Capacitor for Retrofit Lamps Applications. IEEE Transactions on Power Electronics, 2017, 32, 3908-3919.	7.9	7
49	A Family of High Frequency AC-LED Drivers Based on ZCS-QRCs. IEEE Transactions on Power Electronics, 2018, 33, 8728-8740.	7.9	7
50	Variable-Width Hysteretic Analog Control for QSW-ZVS and TCM Source/Sink Converters. IEEE Transactions on Power Electronics, 2020, 35, 3195-3207.	7.9	7
51	RoboCrane: A system for providing a power and a communication link between lunar surface and lunar caves for exploring robots. Acta Astronautica, 2022, 192, 30-46.	3.2	7
52	A Unity Power Factor Correction Preregulator with Fast Dynamic Response Based on a Low-Cost Microcontroller. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	6
53	The Voltage-controlled compensation ramp: A new waveshaping technique for Power Factor Correctors. , 2008, , .		6
54	Switching performance comparison of the SiC JFET and the SiC JFET/Si MOSFET cascode configuration. , 2013, , .		6

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55	On Bidirectional DC Nano-Grids: Design Considerations and an Architecture Proposal. <i>Energies</i> , 2019, 12, 3715.	3.1	6
56	SiC-Based High Efficiency High Isolation Dual Active Bridge Converter for a Power Electronic Transformer. <i>Energies</i> , 2020, 13, 1198.	3.1	6
57	Analysis of the switching process in the Asymmetrical Half-Bridge converter for street led-lighting applications. , 2012, , .		5
58	Inductor optimization for multiphase interleaved synchronous bidirectional Boost converter working in discontinuous conduction mode with zero voltage switching. , 2013, , .		5
59	The Master's Thesis: An Opportunity for Fostering Presentation Skills. <i>IEEE Transactions on Education</i> , 2014, 57, 61-68.	2.4	5
60	Design and construction of a DAB using SiC MOSFETs with an isolation of 24 kV for PET applications. , 2017, , .		5
61	Online Condition Monitoring of Bond Wire Degradation in Inverter Operation. , 2018, , .		5
62	An Analog Magnetic Isolator for Space Power Applications. <i>Energies</i> , 2020, 13, 4504.	3.1	5
63	Smooth-Transition Simple Digital PWM Modulator for Four-Switch Buck-Boost Converters. <i>Electronics (Switzerland)</i> , 2022, 11, 100.	3.1	5
64	Application of source reconstruction techniques and NF-FF transformations to estimate the EMI regulation compliance of a power electronic circuit. <i>IEEE Applied Power Electronics Conference and Exposition</i> , 2008, , .	0.0	4
65	Digital implementation of the feedforward loop of the asymmetrical half-bridge converter for LED lighting applications. , 2013, , .		4
66	Single-stage AC/DC dual inductor BCM current-fed push-pull for HB-LED lighting applications. , 2016, , .		4
67	High frequency dc-dc AC-LED driver based on ZCS-QRCs. , 2017, , .		4
68	Self-driven synchronous-rectification technique for the Asymmetrical Half-Bridge converter in led lighting applications. , 2013, , .		3
69	Design of a Two Input Buck converter (TIBuck) for a Visible Light Communication LED driver based on splitting the power. , 2020, , .		3
70	A Low-Cost High Power Factor Battery Charger based on Standard Peak-Current Mode Integrated Controllers. <i>EPE Journal (European Power Electronics and Drives Journal)</i> , 2010, 20, 12-21.	0.7	2
71	Dynamic IPT system with lumped coils for railway application. , 2017, , .		2
72	Optimization procedure of source/sink converters for DC power distribution nano-grids. , 2018, , .		2

#	ARTICLE	IF	CITATIONS
73	Energization and Start-up of Modular Three-stage Solid State Transformers. , 2018, , .		2
74	Flexible and Fault Tolerant Distributed Control Structures for Modular Power Electronic Transformers. , 2019, , .		2
75	Junction Temperature Model and Degradation Effect in IGBT Multichip Power Modules. , 2019, , .		2
76	Very Simple Active Snubber Based on the Use of a Low Cost Integrated Switch. , 0, , .		1
77	Simplified Voltage Notch Filler for Interactive Uninterruptible Power Supplies. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	1
78	Using standard peak-current-mode controllers in high-power-factor rectifiers based on up-down switching converters. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	1
79	Transfer Time Suppressor (TTS) for line-interactive Uninterruptible Power Supplies. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	1
80	Modular three-phase ac-dc LED driver based on summing the light output of each phase. , 2018, , .		1
81	A very simple analog control for QSW-ZVS source/sink buck converter with seamless mode transition. , 2018, , .		1
82	High Efficiency Bus Provider for VLC Applications Based an Asymmetrical Half Bridge Converter with a Resonant DCX Auxiliary Output. , 2021, , .		1
83	Analysis and design of a latching current limiter based on a SiC N-MOSFET. , 2021, , .		1
84	A new very simple control circuitry for the Flyback family of Power Factor Correctors operating in continuous conduction mode. , 2008, , .		0
85	Study of the Power Factor Correctors with fast output-voltage feedback loop. , 2008, , .		0
86	Transfer Time Suppressor with Series-Parallel Connection. , 2009, , .		0
87	On supplying LEDs from very low dc voltages with high frequency AC-LED drivers. , 2018, , .		0