Jon Andoni Barrena

List of Publications by Year
in descending order

51 papers	4,024 citations	516710 16 h-index	552781 26 g-index
51 all docs	51 docs citations	51 times ranked	5327 citing authors

#	Article	IF	Citations
1	Reactive power limits of Cascaded H-Bridge STATCOMs in star and delta configuration under negative-sequence current withstanding. International Journal of Electrical Power and Energy Systems, 2022, 142, 108267.	5.5	2
2	Power Balancing in Cascaded H-Bridge and Modular Multilevel Converters Under Unbalanced Operation: A Review. IEEE Access, 2021, 9, 110525-110543.	4.2	25
3	Dual Inertia-Emulation Control for Interlinking Converters in Grid-Tying Applications. IEEE Transactions on Smart Grid, 2021, 12, 3868-3876.	9.0	13
4	Reactive Power Limits of Single-Phase and Three-Phase DC-Link VSC STATCOMs under Negative-Sequence Voltage and Current. , 2021, , .		2
5	Methodology to Evaluate Converter Structures based on 3L NPC PEBBs. , 2020, , .		4
6	Interlinking converters and their contribution to primary regulation: a review. International Journal of Electrical Power and Energy Systems, 2019, 111, 44-57.	5.5	40
7	Electronic on Load Tap Changer Transformer for DC Electrical Railway Power Supply Systems. , 2019, , .		3
8	Unified Virtual Inertia for ac and dc Microgrids: And the Role of Interlinking Converters. IEEE Electrification Magazine, 2019, 7, 56-68.	1.8	17
9	Comparative Eigenvalue Analysis of Synchronous Machine Emulations and Synchronous Machines. , 2019, , .		7
10	Medium-Voltage AC Static Switch Solution to Feed Neutral Section in a High-Speed Railway System. Energies, 2018, 11, 2740.	3.1	9
11	Impedance-Based Stability Evaluation of Virtual Synchronous Machine Implementations in Converter Controllers. , 2018, , .		16
12	Analytical Modeling Approach to Study Harmonic Mitigation in AC Grids with Active Impedance at Selective Frequencies. Energies, 2018, 11, 1337.	3.1	6
13	Experimental test bench for testing DC microgrid control strategies. , 2017, , .		1
14	Design and small-signal stability analysis of a virtual-capacitor control for DC microgrids. , 2017, , .		23
15	Equivalence of Primary Control Strategies for AC and DC Microgrids. Energies, 2017, 10, 91.	3.1	25
16	Hybrid AC/DC Microgrid Mode-Adaptive Controls. , 2017, , .		1
17	Equivalence of primary control strategies for AC and DC microgrids. , 2016, , .		2
18	Review on supercapacitors: Technologies and materials. Renewable and Sustainable Energy Reviews, 2016, 58, 1189-1206.	16.4	2,197

#	Article	IF	Citations
19	Optimization of the consumption for industrial customers using battery energy storage systems. , 2015, , .		1
20	Hybrid ac/dc microgridsâ€"Part I: Review and classification of topologies. Renewable and Sustainable Energy Reviews, 2015, 52, 1251-1259.	16.4	264
21	Hybrid ac/dc microgridsâ€"Part II: Review and classification of control strategies. Renewable and Sustainable Energy Reviews, 2015, 52, 1123-1134.	16.4	178
22	Primary control operation modes in islanded hybrid ac/dc microgrids. , 2015, , .		8
23	New Hexagonal Three-Phase Voltage-Source Converter Topology for High-Power Applications. IEEE Transactions on Industrial Electronics, 2015, 62, 30-39.	7.9	21
24	Analysis of massive integration of renewable power plants under new regulatory frameworks. , 2014, , .		7
25	Voltage Source Converter Topology for High-Power Applications Serializing Three-Phase Converters and H-Bridges. IEEE Transactions on Industrial Electronics, 2014, 61, 5184-5191.	7.9	7
26	IP-ZSBT Magnetic Configuration for Parallelizationâ€"Serialization of Three-Phase High Power Converters. IEEE Transactions on Energy Conversion, 2014, 29, 366-374.	5.2	5
27	Isolated Double-Twin VSC Topology Using Three-Phase IPTs for High-Power Applications. IEEE Transactions on Power Electronics, 2014, 29, 5761-5769.	7.9	20
28	VSC topology comparison for STATCOM application under unbalanced conditions. , 2013, , .		5
29	Passive balancing of the DC bus midpoint for Neutral Point Clamped (NPC) based Voltage Source Converters. , 2013, , .		2
30	Novel Zero-Sequence Blocking Transformer (ZSBT) Using Three Single-Phase Transformers. IEEE Transactions on Energy Conversion, 2013, 28, 234-242.	5.2	28
31	Modular Multilevel Converter With Different Submodule Conceptsâ€"Part I: Capacitor Voltage Balancing Method. IEEE Transactions on Industrial Electronics, 2013, 60, 4525-4535.	7.9	246
32	Modular Multilevel Converter With Different Submodule Conceptsâ€"Part II: Experimental Validation and Comparison for HVDC Application. IEEE Transactions on Industrial Electronics, 2013, 60, 4536-4545.	7.9	176
33	Analysis and Improved Operation of a PEBB-Based Voltage-Source Converter for FACTS Applications. IEEE Transactions on Power Delivery, 2013, 28, 1330-1338.	4.3	17
34	Distribution network simulation method based on a combination of dynamic power-flow simulation and electro-magnetic simulation. , 2013, , .		1
35	An Experimentally Verified Active Gate Control Method for the Series Connection of IGBT/Diodes. IEEE Transactions on Power Electronics, 2012, 27, 1025-1038.	7.9	110
36	Optimized LCL filter design methodology applied to MV grid-connected multimegawatt VSC. , 2012, , .		13

#	Article	IF	Citations
37	Frequency restoration in insular grids using Ultracaps ESS. , 2010, , .		6
38	Modelling, simulation and control of Modular Multilevel Converter. , 2010, , .		39
39	Modulation of Modular Multilevel Converter for HVDC application. , 2010, , .		61
40	Grid manager design using Battery Energy Storage Systems in weak power systems with high penetration of wind energy. Renewable Energy and Power Quality Journal, 2010, 1, 1208-1212.	0.2	2
41	Active substation design to maximize DG integration. , 2009, , .		11
42	Component minimized AC/DC/AC converter with DC-link capacitors voltages balancing. , 2009, , .		9
43	Spectral analysis of a transmission system based on AC submarine cables for an offshore wind farm. , 2009, , .		14
44	Benefits of distributed energy storage working in parallel to distributed energy resources. Renewable Energy and Power Quality Journal, 2009, 1, 739-743.	0.2	2
45	An IGBT behavioural model based on curve fitting methods. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	6
46	Comparison of DC-bus voltage balancing strategies for three-phase DSTATCOM based on cascaded H-bridge multilevel converter. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	5
47	Individual Voltage Balancing Strategy for PWM Cascaded H-Bridge Converter-Based STATCOM. IEEE Transactions on Industrial Electronics, 2008, 55, 21-29.	7.9	290
48	A Novel PWM Modulation Strategy for DC Voltage Balancing in Cascaded H-Bridge Multilevel Converters. , 2007, , .		24
49	DC Voltage Balancing for PWM Cascaded H-Bridge Converter Based STATCOM. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	29
50	Design, analysis and comparison of multilevel topologies for DSTATCOM applications. , 2005, , .		21
51	Power electronics applied to voltage control in rural distribution networks with penetration of distributed generation. Renewable Energy and Power Quality Journal, 0, , 879-884.	0.2	3