

# Pawel Szczesniak

## List of Publications by Year in descending order

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69  
papers

604  
citations

687363

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h-index

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g-index

72  
all docs

72  
docs citations

72  
times ranked

377  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hybrid Voltage Sag/Swell Compensators: A Review of Hybrid AC/AC Converters. IEEE Industrial Electronics Magazine, 2015, 9, 37-48.	2.6	52
2	Hybrid Transformer With Matrix Converter. IEEE Transactions on Power Delivery, 2016, 31, 1388-1396.	4.3	45
3	Three-phase AC-AC Power Converters Based on Matrix Converter Topology. Power Systems, 2013, , .	0.5	44
4	AC-AC power electronic converters without DC energy storage: A review. Energy Conversion and Management, 2015, 92, 483-497.	9.2	42
5	Petri Net-Based Specification of Cyber-Physical Systems Oriented to Control Direct Matrix Converters With Space Vector Modulation. IEEE Access, 2019, 7, 23407-23420.	4.2	32
6	Matrix-reactance frequency converters using an low frequency transfer matrix modulation method. Electric Power Systems Research, 2012, 83, 91-103.	3.6	26
7	Advanced metering infrastructure and energy storage for location and mitigation of power quality disturbances in the utility grid with high penetration of renewables. Renewable and Sustainable Energy Reviews, 2022, 157, 111988.	16.4	25
8	Power electronics converters without DC energy storage in the future electrical power network. Electric Power Systems Research, 2015, 129, 194-207.	3.6	24
9	Generation of matrix-reactance frequency converters based on unipolar PWM AC matrix-reactance choppers. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	22
10	A static and dynamic model of a space vector modulated matrix-reactance frequency converter. Electric Power Systems Research, 2014, 108, 82-92.	3.6	17
11	New family of matrix-reactance frequency converters based on unipolar PWM AC matrix-reactance choppers. , 2008, , .		15
12	Design and Implementation of a Fully Controllable Cyber-Physical System for Testing Energy Storage Systems. IEEE Access, 2019, 7, 47259-47272.	4.2	14
13	SVM algorithm oriented for implementation in a low-cost Xilinx FPGA. The Integration VLSI Journal, 2019, 64, 163-172.	2.1	14
14	Low-Cost FPGA Hardware Implementation of Matrix Converter Switch Control. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 1177-1181.	3.0	14
15	Design and Verification of Cyber-Physical Systems Specified by Petri Nets- A Case Study of a Direct Matrix Converter. Mathematics, 2019, 7, 812.	2.2	13
16	Model predictive control algorithm of AC voltage stabilizer based on hybrid transformer with a matrix converter. Electric Power Systems Research, 2019, 170, 222-228.	3.6	13
17	Matrix-Reactance Frequency Converter Based on Buck-Boost Topology. , 2006, , .		12
18	Challenges and Design Requirements for Industrial Applications of AC/AC Power Converters without DC-Link. Energies, 2019, 12, 1581.	3.1	12

#	ARTICLE	IF	CITATIONS
19	Modelling and analysis of a matrix-reactance frequency converter based on buck-boost topology by DQ0 transformation. , 2008, , .		11
20	A voltage regulator/conditioner based on a hybrid transformer with matrix converter. , 2014, , .		10
21	Wavelet-fuzzy speed indirect field oriented controller for three-phase AC motor drive " Investigation and implementation. Engineering Science and Technology, an International Journal, 2016, 19, 1099-1107.	3.2	10
22	Overview of Control Algorithm Verification Methods in Power Electronics Systems. Energies, 2021, 14, 4360.	3.1	9
23	Voltage conditioner & power flow controller based on bipolar matrix-reactance choppers. International Journal of Electrical Power and Energy Systems, 2018, 94, 256-266.	5.5	7
24	Three-phase hybrid transformer using matrix-chopper as an interface between two AC voltage sources. Archives of Electrical Engineering, 2014, 63, 197-210.	1.0	7
25	Model Predictive Control Circuit of the Current Source Matrix Converter. Journal of Power and Energy Engineering, 2015, 03, 136-145.	0.6	7
26	A comparison of basic properties of the integrated and cascade matrix-reactance frequency converters. , 2012, , .		6
27	Comparative study of drive systems using vector-controlled PMSM fed by a matrix converter and a conventional frequency converter. Turkish Journal of Electrical Engineering and Computer Sciences, 2016, 24, 1516-1531.	1.4	6
28	Comparison of control methods for a dynamic voltage restorer using a three-phase matrix converter. Simulation, 2016, 92, 1053-1063.	1.8	6
29	Interpreted Petri Nets Applied to Autonomous Components within Electric Power Systems. Applied Sciences (Switzerland), 2022, 12, 4772.	2.5	6
30	Basic Properties Comparative Study of Matrix-Reactance Frequency Converter Based on Buck-Boost Topology with Venturini Control Strategies. , 2007, , .		5
31	Steady and transient state analysis of a matrix-reactance frequency converter based on a boost PWM AC matrix-reactance chopper. , 2008, , .		5
32	Application of the matrix converter to power flow control. Archives of Electrical Engineering, 2014, 63, 409-422.	1.0	5
33	A modelling of AC voltage stabilizer based on a hybrid transformer with matrix converter. Archives of Electrical Engineering, 2017, 66, 371-382.	1.0	5
34	A comparison of basic properties of single-phase serial AC voltage controllers using bipolar PWM chopper. , 2005, , .		4
35	Modelling and basic properties of three-phase hybrid transformer with unsynchronized active load. , 2013, , .		4
36	Dynamic model of a space vector modulated buck-boost matrix-reactance frequency converter. , 2013, , .		4

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37	The compensator of voltage sags/swell installed in connection terminals of small industrial plant or selected loads. , 2017, , .		4
38	Model Predictive Control of Hybrid Transformer with Matrix Converter. Acta Polytechnica Hungarica, 2020, 17, 25-40.	2.9	4
39	A Comparison Between Two Average Modelling Techniques of AC-AC Power Converters. International Journal of Power Electronics and Drive Systems, 2015, 6, 32.	0.6	4
40	Three-phase AC systems interfaced by current source matrix converter with space vector modulation. , 2010, , .		3
41	Review of AC-AC Frequency Converters. Power Systems, 2013, , 17-86.	0.5	3
42	Matrix converter interfaces two three-phase AC systems as a component of smart-grid. , 2014, , .		3
43	Study of the current source matrix converter using model predictive control in AC drive system. , 2016, , .		3
44	Matrix-Reactance Frequency Converter Based on Buck-Boost Topology. , 2006, , .		3
45	An Elastic Energy Management Algorithm in a Hierarchical Control System with Distributed Control Devices. Energies, 2022, 15, 4750.	3.1	3
46	Modelling and analysis of three-phase hybrid transformer with buck-boost matrix-reactance chopper and active load. , 2014, , .		2
47	Three-Phase power flow controller with AC/AC converter based on matrix-reactance chopper. , 2015, , .		2
48	The Study of Smart Distribution Transformer Based on a Bipolar Matrix Chopper. , 2017, , .		2
49	Mathematical Modeling of Current Source Matrix Converter with Venturini and SVM. Electronics (Switzerland), 2020, 9, 558.	3.1	2
50	Elastic Energy Management Algorithm Using IoT Technology for Devices with Smart Appliance Functionality for Applications in Smart-Grid. Energies, 2022, 15, 109.	3.1	2
51	Concept of Matrix-Reactance Frequency Converters. Power Systems, 2013, , 87-105.	0.5	1
52	Experimental Investigation. Power Systems, 2013, , 151-168.	0.5	1
53	Modelling of voltage transfer function of the three-phase hybrid transformers with voltage or current source matrix converter. , 2015, , .		1
54	AC voltage transforming circuits in power systems. , 2015, , .		1

#	ARTICLE	IF	CITATIONS
55	Three-phase power flow controller based on hybrid transformer with matrix converter. , 2016, , .		1
56	AC Drives with Buck-Boost Voltage Switched Frequency Converters without DC Storage. , 2018, , .		1
57	Statistical Performance Verification of the FS-MPC Algorithm Applied to the Matrix Converter. , 2022, , .		1
58	Summary of Book. Power Systems, 2013, , 169-172.	0.5	0
59	Modelling of Matrix-Reactance Frequency Converters. Power Systems, 2013, , 107-126.	0.5	0
60	Alternative drive solution with matrix converter fed permanent magnet synchronous motor. , 2014, , .		0
61	A novel multilevel quad-inverter configuration for quasi six-phase open-winding converter. , 2016, , .		0
62	Proposed novel multiphase-multilevel inverter configuration for open-end winding loads. , 2016, , .		0
63	Hardware realization of an SVM algorithm implemented in FPGAs. , 2017, , , .		0
64	Sensorless control of PMSM fed by a matrix converter. , 2017, , , .		0
65	Compensation for changes in AC voltage at the building terminals using a hybrid transformer. , 2021, , .		0
66	Badania wiązki szeregowego kompensatora napięcia przemiennego bazującego na przekształtniku matrycowym. Przegląd Elektrotechniczny, 2015, 1, 181-187.	0.2	0
67	AC Voltage Transforming Circuits in Power Systems. Przegląd Elektrotechniczny, 2015, 1, 10-19.	0.2	0
68	Przełączniki czystości bez magazynu energii przy stałym zasilaniu z przekształtnikiem matrycowym zasilanym ze źródła prądowego. Przegląd Elektrotechniczny, 2015, 1, 160-163.	0.2	0
69	Modelling of voltage transfer function of the three-phase hybrid transformers with voltage or current source matrix converter. Przegląd Elektrotechniczny, 2015, 1, 135-140.	0.2	0