Hani Vahedi

List of Publications by Year
in descending order

80 papers	2,948 citations	236925 25 h-index	361022 35 g-index
80 all docs	80 docs citations	80 times ranked	1487 citing authors

#	Article	IF	Citations
1	Fault-Tolerant Asymmetrical Multilevel Inverter With Preserved Output Power Under Post-Fault Operation. IEEE Transactions on Industrial Electronics, 2022, 69, 6764-6773.	7.9	5
2	ANN based Auto-Tuned Optimized FCS-MPC for Grid-Connected CSC Inverter. , 2022, , .		6
3	A V2G Enabled Bidirectional Single/Three-Phase EV Charging Interface Using Modular Multilevel Buck PFC Rectifier. Electronics (Switzerland), 2022, 11, 1891.	3.1	4
4	Review on Single-DC-Source Multilevel Inverters: Topologies, Challenges, Industrial Applications, and Recommendations. IEEE Open Journal of the Industrial Electronics Society, 2021, 2, 112-127.	6.8	74
5	Real-Time Implementation of an Optimized Model Predictive Control for a 9-Level CSC Inverter in Grid-Connected Mode. Sustainability, 2021, 13, 8119.	3.2	11
6	Artificial Jellyfish Search Algorithm-Based Selective Harmonic Elimination in a Cascaded H-Bridge Multilevel Inverter. Electronics (Switzerland), 2021, 10, 2402.	3.1	16
7	Meta-Heuristic Optimization Techniques Used for Maximum Power Point Tracking in Solar PV System. Electronics (Switzerland), 2021, 10, 2419.	3.1	31
8	LQR Control of Single-Phase Grid-Tied PUC5 Inverter With LCL Filter. IEEE Transactions on Industrial Electronics, 2020, 67, 297-307.	7.9	37
9	Experimental Design of Fixed Switching Frequency Model Predictive Control for Sensorless Five-Level Packed U-Cell Inverter. IEEE Transactions on Industrial Electronics, 2019, 66, 3427-3434.	7.9	39
10	Applications of artifical intelligence in power electronics. , 2019, , .		14
11	Nine-Level Packed U-Cell (PUC9) Inverter Topology with Single-DC-Source and Effective Voltage Balancing of Auxiliary Capacitors. , 2019, , .		18
12	Comparative study of multiâ€objective finite set predictive control methods with new maxâ€“min strategy applied on a sevenâ€level packed U â€cell inverter. IET Power Electronics, 2019, 12, 2170-2178.	2.1	7
13	The Original DSP Technique Implemented on a Five-Phase Indirect Matrix Converter 5P-IMC. , 2019, , .		6
14	Fast Sensor-Less Voltage Balancing and Capacitor Size Reduction in PUC5 Converter Using Novel Modulation Method. IEEE Transactions on Industrial Informatics, 2019, 15, 4394-4406.	11.3	54
15	Standalone Operation of Modified Seven-Level Packed U-Cell (MPUC) Single-Phase Inverter. Electronics (Switzerland), 2019, 8, 268.	3.1	6
16	Multi DC Source Inverters, Pros and Cons. Springer Briefs in Electrical and Computer Engineering, 2019, , 7-9.	0.5	4
17	Single-DC-Source Multilevel Inverters. Springer Briefs in Electrical and Computer Engineering, 2019, , 11-18.	0.5	6
18	Packed U-Cell Topology. Springer Briefs in Electrical and Computer Engineering, 2019, , 19-37.	0.5	0

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19	Single-DC-Source Multilevel Inverters. Springer Briefs in Electrical and Computer Engineering, 2019, , .	0.5	12
20	Selective Harmonic Mitigation Based Self-Elimination of Triplen Harmonics for Single-Phase Five-Level Inverters. IEEE Transactions on Power Electronics, 2019, 34, 86-96.	7.9	72
21	Modified Seven-Level Pack U-Cell Inverter for Photovoltaic Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 1508-1516.	5.4	133
22	Novel Current Controller Based on MPC With Fixed Switching Frequency Operation for a Grid-Tied Inverter. IEEE Transactions on Industrial Electronics, 2018, 65, 6198-6205.	7.9	42
23	New Constraint in SHE-PWM for Single-Phase Inverter Applications. IEEE Transactions on Industry Applications, 2018, 54, 4554-4562.	4.9	37
24	Reduced DC-Link Voltage Active Power Filter Using Modified PUC5 Converter. IEEE Transactions on Power Electronics, 2018, 33, 943-947.	7.9	93
25	Generalized Phase-Shift Pulse Width Modulation for Multi-Level Converters. , 2018, , .		13
26	Sensor-Less Logic-Equation-Based Modualtion Method for Grid-Connected PUC5 Converter. , 2018, , .		3
27	A New Asymmetrical Cascaded Multilevel Inverter with Reduced Number of Components. , 2018, , .		8
28	Space Vector Modulation Technique on Single Phase Sensor-Less PUC5 Inverter and Voltage Balancing at Flying Capacitor. , 2018, , .		16
29	SHM-PWM applied on single DC source CHB with self-regulation of capacitors voltages. , 2018, , .		13
30	Low Complexity Model Predictive Control of PUC5 Based Dynamic Voltage Restorer. , 2018, , .		14
31	Static VAr compensator using packed U-cell based multilevel converter. , 2018, , .		14
32	Phase-shift modulation technique for 5-level packed U-cell (PUC5) inverter. , 2018, , .		29
33	Model predictive control design for DC-DC converters applied to a photovoltaic system. International Journal of Electrical Power and Energy Systems, 2018, 103, 537-544.	5.5	49
34	Explicit double-exponential modeling methods for photovoltaic cells. , 2017, , .		2
35	A generalized formulation of SHM-PAM for cascaded H-bridge inverters with non-equal DC sources. , 2017, , .		22
36	New constraint in SHE-PWM for single phase inverter applications. , 2017, , .		33

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37	Topology and control analysis of single-DC-source five-level packed U-cell inverter (PUC5). , 2017, , .		19
38	New multilevel inverter with three extendable units. , 2017, , .		3
39	Sensor-Less Five-Level Packed U-Cell (PUC5) Inverter Operating in Stand-Alone and Grid-Connected Modes. IEEE Transactions on Industrial Informatics, 2016, 12, 361-370.	11.3	144
40	Five-Level Reduced-Switch-Count Boost PFC Rectifier With Multicarrier PWM. IEEE Transactions on Industry Applications, 2016, 52, 4201-4207.	4.9	36
41	Finite control set model predictive controller for grid connected inverter design. , 2016, , .		15
42	Model predictive controller with fixed switching frequency for a 3L-NPC inverter. , 2016, , .		15
43	Design and implementation of a new three source topology of multilevel inverters with reduced number of switches. , 2016, , .		7
44	PUC5 inverter - a promising topology for single-phase and three-phase applications. , 2016, , .		46
45	Carrier based PWM for even power distribution in cascaded H-bridge multilevel inverters within single power cycle. , 2016, , .		10
46	Solar energy processor based on Packed U-Cells 7-level inverter for grid applications. , 2016, , .		13
47	A general space-vector modulation technique for multilevel NPC inverter. , 2016, , .		6
48	Design and Implementation of Space Vector Modulation-Based Sliding Mode Control for Grid-Connected 3L-NPC Inverter. IEEE Transactions on Industrial Electronics, 2016, 63, 7854-7863.	7.9	122
49	A Novel Multilevel Multioutput Bidirectional Active Buck PFC Rectifier. IEEE Transactions on Industrial Electronics, 2016, 63, 5442-5450.	7.9	84
50	Balancing threeâ€level neutral point clamped inverter DC bus using closedâ€loop space vector modulation: realâ€time implementation and investigation. IET Power Electronics, 2016, 9, 2076-2084.	2.1	40
51	A new SVM-based voltage balancing method for five-level NPC inverter. , 2016, , .		7
52	Corrections to â€œSensor-Less Five-Level Packed U-Cell (PUC5) Inverter Operating in Stand-Alone and Grid-Connected Modesâ€•[Feb 16 361-370]. IEEE Transactions on Industrial Informatics, 2016, 12, 1298-1298.	11.3	137
53	Model predictive control for the packed U-Cells 7-level grid connected inverter. , 2016, , .		13
54	Sliding Mode Control of PMSG Wind Turbine Based on Enhanced Exponential Reaching Law. IEEE Transactions on Industrial Electronics, 2016, 63, 6148-6159.	7.9	204

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55	Sliding Mode Fixed Frequency Current Controller Design for Grid-Connected NPC Inverter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 1397-1405.	5.4	77
56	Real-Time Implementation of Model-Predictive Control on Seven-Level Packed U-Cell Inverter. IEEE Transactions on Industrial Electronics, 2016, 63, 4180-4186.	7.9	119
57	Hybrid SHM-SHE Pulse-Amplitude Modulation for High-Power Four-Leg Inverter. IEEE Transactions on Industrial Electronics, 2016, 63, 7234-7242.	7.9	66
58	Optimised harmonic elimination modulation extended to fourâ€leg neutralâ€pointâ€clamped inverter. IET Power Electronics, 2016, 9, 441-448.	2.1	29
59	Real-Time Implementation of a Seven-Level Packed U-Cell Inverter with a Low-Switching-Frequency Voltage Regulator. IEEE Transactions on Power Electronics, 2016, 31, 5967-5973.	7.9	133
60	A Review on Multilevel Converter Topologies for Electric Transportation Applications. , 2015, , .		50
61	Single-Phase Single-Switch Vienna Rectifier as Electric Vehicle PFC Battery Charger. , 2015, , .		32
62	Conservative Power Theory Used in NPC-Based Shunt Active Power Filter to Eliminate Electric Metro System Harmonics. , 2015, , .		5
63	Single-DC-source 7-level CHB inverter with multicarrier level-shifted PWM. , 2015, , .		25
64	PUC converter review: Topology, control and applications. , 2015, , .		54
65	Single-DC-source five-level CHB inverter with sensor-less voltage balancing. , 2015, , .		10
66	Improved hybrid SHM-SHE modulation technique for four-leg three-level NPC inverters. , 2015, , .		14
67	Hybrid SHMâ€“SHE Modulation Technique for a Four-Leg NPC Inverter With DC Capacitor Self-Voltage Balancing. IEEE Transactions on Industrial Electronics, 2015, 62, 4890-4899.	7.9	90
68	A new five-level buck-boost active rectifier. , 2015, , .		27
69	Five-level reduced-switch-count boost PFC rectifier with multicarrier PWM. , 2015, , .		11
70	Real-time simulation of 7-level Packed U-Cell shunt active power filter. , 2015, , .		9
71	Selective harmonic elimination modulation technique applied on four-leg NPC. , 2014, , .		28
72	Modified selective harmonic elimination employed in four-leg NPC inverters. , 2014, , .		19

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73	A new voltage balancing controller applied on 7-level PUC inverter. , 2014, , .		50
74	Cascaded multilevel inverter with multicarrier PWM technique and voltage balancing feature. , 2014, , .		37
75	Crossover Switches Cell (CSC): A new multilevel inverter topology with maximum voltage levels and minimum DC sources. , 2013, , .		64
76	Pinned mid-points multilevel inverter (PMP): Three-phase topology with high voltage levels and one bidirectional switch. , 2013, , .		39
77	Half-bridge based multilevel inverter generating higher voltage and power. , 2013, , .		25
78	Weighting Method to Identify Interharmonics based on Calculating the Bandwidth in Group-Harmonics. Journal of Power Electronics, 2013, 13, 170-176.	1.5	6
79	Review and Simulation of Fixed and Adaptive Hysteresis Current Control Considering Switching Losses and High-Frequency Harmonics. Advances in Power Electronics, 2011, 2011, 1-6.	0.8	43
80	A novel hysteresis bandwidth (NHB) calculation to fix the switching frequency employed in active power filter. , 2011, , .		22