Yam Prasad Siwakoti

List of Publications by Year
in descending order

136	6,336	126858	74108
papers	citations	33 h-index	75 g-index

136	136	136	2575
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Step-Up DCâ€“DC Converters: A Comprehensive Review of Voltage-Boosting Techniques, Topologies, and Applications. IEEE Transactions on Power Electronics, 2017, 32, 9143-9178.	5.4	1,348
2	Impedance-Source Networks for Electric Power Conversion Part I: A Topological Review. IEEE Transactions on Power Electronics, 2015, 30, 699-716.	5.4	641
3	Impedance-Source Networks for Electric Power Conversion Part II: Review of Control and Modulation Techniques. IEEE Transactions on Power Electronics, 2015, 30, 1887-1906.	5.4	349
4	High-Efficiency High Step-Up DCâ€“DC Converter With Dual Coupled Inductors for Grid-Connected Photovoltaic Systems. IEEE Transactions on Power Electronics, 2018, 33, 5967-5982.	5.4	323
5	Transformerless Inverter Topologies for Single-Phase Photovoltaic Systems: A Comparative Review. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 805-835.	3.7	248
6	Common-Ground-Type Transformerless Inverters for Single-Phase Solar Photovoltaic Systems. IEEE Transactions on Industrial Electronics, 2018, 65, 2100-2111.	5.2	246
7	Y-Source Impedance Network. IEEE Transactions on Power Electronics, 2014, 29, 3250-3254.	5.4	195
8	New Magnetically Coupled Impedance (Z-) Source Networks. IEEE Transactions on Power Electronics, 2016, 31, 7419-7435.	5.4	118
9	A Novel Seven-Level Active Neutral-Point-Clamped Converter With Reduced Active Switching Devices and DC-Link Voltage. IEEE Transactions on Power Electronics, 2019, 34, 10492-10508.	5.4	111
10	Y-Source Boost DC/DC Converter for Distributed Generation. IEEE Transactions on Industrial Electronics, 2015, 62, 1059-1069.	5.2	109
11	Single Switch Nonisolated Ultra-Step-Up DCâ€“DC Converter With an Integrated Coupled Inductor for High Boost Applications. IEEE Transactions on Power Electronics, 2017, 32, 8544-8558.	5.4	107
12	Comparison of Impedance-Source Networks for Two and Multilevel Buckâ€“Boost Inverter Applications. IEEE Transactions on Power Electronics, 2016, 31, 7564-7579.	5.4	95
13	Six-Switch Step-Up Common-Grounded Five-Level Inverter With Switched-Capacitor Cell for Transformerless Grid-Tied PV Applications. IEEE Transactions on Industrial Electronics, 2021, 68, 1374-1387.	5.2	92
14	A New Switched-Capacitor Five-Level Inverter Suitable for Transformerless Grid-Connected Applications. IEEE Transactions on Power Electronics, 2020, 35, 8140-8153.	5.4	83
15	Quasi-Y-Source Boost DCâ€“DC Converter. IEEE Transactions on Power Electronics, 2015, 30, 6514-6519.	5.4	79
16	Switched Capacitor Integrated (2n + 1)-Level Step-Up Single-Phase Inverter. IEEE Transactions on Power Electronics, 2020, 35, 8248-8260.	5.4	75
17	A Novel Generalized Common-Ground Switched-Capacitor Multilevel Inverter Suitable for Transformerless Grid-Connected Applications. IEEE Transactions on Power Electronics, 2021, 36, 10293-10306.	5.4	73
18	A Fault-Tolerant Hybrid Cascaded H-Bridge Multilevel Inverter. IEEE Transactions on Power Electronics, 2020, 35, 12702-12715.	5.4	72

#	Article	IF	Citations
19	Switched-Capacitor Multilevel Inverters: A Comprehensive Review. IEEE Transactions on Power Electronics, 2022, 37, 11209-11243.	5.4	71
20	Analysis and Design of a Novel Six-Switch Five-Level Active Boost Neutral Point Clamped Inverter. IEEE Transactions on Industrial Electronics, 2020, 67, 10485-10496.	5.2	67
21	Effects of Leakage Inductances on Magnetically Coupled Y-Source Network. IEEE Transactions on Power Electronics, 2014, 29, 5662-5666.	5.4	63
22	New Semiquadratic High Step-Up DC/DC Converter for Renewable Energy Applications. IEEE Transactions on Power Electronics, 2021, 36, 433-446.	5.4	59
23	Highâ€voltage boost quasiâ€Zâ€source isolated DC/DC converter. IET Power Electronics, 2014, 7, 2387-2395.	1.5	55
24	A new six-switch five-level boost-active neutral point clamped (5L-Boost-ANPC) inverter. , 2018, , .		50
25	High Step-Up Trans-Inverse (Tx^{â^'1}) DCâ€“DC Converter for the Distributed Generation System. IEEE Transactions on Industrial Electronics, 2016, 63, 4278-4291.	5.2	48
26	A-Source Impedance Network. IEEE Transactions on Power Electronics, 2016, , 1-1.	5.4	48
27	Dual-T-Type Five-Level Cascaded Multilevel Inverter With Double Voltage Boosting Gain. IEEE Transactions on Power Electronics, 2020, 35, 9522-9529.	5.4	44
28	Design, Control, and Analysis of a Novel Grid-Interfaced Switched-Boost Dual T-Type Five-Level Inverter With Common-Ground Concept. IEEE Transactions on Industrial Electronics, 2021, 68, 8193-8206.	5.2	44
29	A Common Grounded Type Dual-Mode Five-Level Transformerless Inverter for Photovoltaic Applications. IEEE Transactions on Industrial Electronics, 2021, 68, 9742-9754.	5.2	43
30	A New High-Gain, High-Efficiency SEPIC-Based DCâ€“DC Converter for Renewable Energy Applications. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2021, 2, 567-578.	3.0	42
31	A Novel Single-Stage Five-Level Common-Ground-Boost-Type Active Neutral-Point-Clamped (5L-CGBT-ANPC) Inverter. IEEE Transactions on Power Electronics, 2021, 36, 6192-6196.	5.4	41
32	A novel flying capacitor transformerless inverter for single-phase grid connected solar photovoltaic system. , 2016, , .		39
33	High-Voltage Gain Quasi-SEPIC DCâ€“DC Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 1243-1257.	3.7	39
34	Hybrid 7-Level Boost Active-Neutral-Point- Clamped (H-7L-BANPC) Inverter. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 2044-2048.	2.2	38
35	A Novel Full Soft-Switching High-Gain DC/DC Converter Based on Three-Winding Coupled-Inductor. IEEE Transactions on Power Electronics, 2021, 36, 12656-12669.	5.4	38
36	A Switched-Capacitors-Based 13-Level Inverter. IEEE Transactions on Power Electronics, 2022, 37, 644-658.	5.4	36

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37	Small-Signal Modeling and Comprehensive Analysis of Magnetically Coupled Impedance-Source Converters. IEEE Transactions on Power Electronics, 2016, 31, 7621-7641.	5.4	34
38	Design of FPGA-controlled power electronics and drives using MATLAB Simulink. , 2013, , .		33
39	Y-source impedance network. , 2014, , .		33
40	A Trans-Inverse Coupled-Inductor Semi-SEPIC DC/DC Converter With Full Control Range. IEEE Transactions on Power Electronics, 2019, 34, 10398-10402.	5.4	31
41	A Novel Dual-Mode Switched-Capacitor Five-Level Inverter With Common-Ground Transformerless Concept. IEEE Transactions on Power Electronics, 2021, 36, 13740-13753.	5.4	31
42	A Novel Boost Cascaded Multilevel Inverter. IEEE Transactions on Industrial Electronics, 2021, 68, 8072-8080.	5.2	30
43	Magnetically coupled highâ€gain Yâ€source isolated DC/DC converter. IET Power Electronics, 2014, 7, 2817-2824.	1.5	29
44	A New High Efficiency High Step-Up DC/DC Converter for Renewable Energy Applications. IEEE Transactions on Industrial Electronics, 2023, 70, 1489-1500.	5.2	29
45	Y-source inverter. , 2014, , .		27
46	Family of stepâ€up DC/DC converters with fast dynamic response for low power applications. IET Power Electronics, 2016, 9, 2665-2673.	1.5	27
47	A Modified Y-Source DCâ€“DC Converter With High Voltage-Gains and Low Switch Stresses. IEEE Transactions on Power Electronics, 2020, 35, 7716-7720.	5.4	27
48	A survey on voltage boosting techniques for step-up DC-DC converters. , 2016, , .		26
49	Nine-Level Nine-Switch Common-Ground Switched-Capacitor Inverter Suitable for High-Frequency AC-Microgrid Applications. IEEE Transactions on Power Electronics, 2022, 37, 6132-6143.	5.4	26
50	Implementation and Analysis of a Novel Switched-Boost Common-Ground Five-Level Inverter Modulated With Model Predictive Control Strategy. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 731-744.	3.7	25
51	H-Bridge transformerless inverter with common ground for single-phase solar-photovoltaic system. , 2017, , .		24
52	A Novel Common-Ground-Type Nine-Level Dynamic Boost Inverter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 4435-4442.	3.7	23
53	Switched-Capacitor-Based Five-Level T-Type Inverter (SC-5TI) With Soft-Charging and Enhanced DC-Link Voltage Utilization. IEEE Transactions on Power Electronics, 2021, 36, 13958-13967.	5.4	23
54	A Single-Stage Multi-Port Buck-Boost Inverter. IEEE Transactions on Power Electronics, 2021, 36, 7769-7782.	5.4	22

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55	Steady-State and Small-Signal Analysis of A-Source Converter. IEEE Transactions on Power Electronics, 2018, 33, 7118-7131.	5.4	20
56	Generalized diamondâ€type single DCâ€source switchedâ€capacitor based multilevel inverter with stepâ€up and natural voltage balancing capabilities. IET Power Electronics, 2021, 14, 1208-1218.	1.5	20
57	High Step-Up SEPIC-Based Trans-Inverse DCâ€“DC Converter With Quasi-Resonance Operation for Renewable Energy Applications. IEEE Transactions on Industrial Electronics, 2023, 70, 485-497.	5.2	20
58	Improved modulation Technique for voltage fed quasi-Z-source DC/DC converter. , 2014, , .		19
59	Switchedâ€capacitor multilevel inverter with selfâ€voltageâ€balancing for highâ€frequency power distribution system. IET Power Electronics, 2020, 13, 1807-1818.	1.5	19
60	A Single-Phase Common-Ground Five-Level Transformerless Inverter With Low Component Count for PV Applications. IEEE Transactions on Industrial Electronics, 2023, 70, 2662-2674.	5.2	19
61	An Active-Neutral-Point-Clamped Switched-Capacitor Multilevel Inverter With Quasi-Resonant Capacitor Charging. IEEE Transactions on Power Electronics, 2022, 37, 14888-14901.	5.4	19
62	Three-phase transformerless grid connected Quasi Z-Source Inverter for solar photovoltaic systems with minimal leakage current. , 2012, , .		18
63	An Improved PWM Technique to Achieve Continuous Input Current in Common-Ground Transformerless Boost Inverter. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 3133-3136.	2.2	18
64	Quasi-Y-source inverter. , 2015, , .		17
65	A Disturbance Rejection-Based Control Strategy for Five-Level T-Type Hybrid Power Converters With Ripple Voltage Estimation Capability. IEEE Transactions on Industrial Electronics, 2020, 67, 7364-7374.	5.2	16
66	Power Electronics Convertersâ€”An Overview. , 2018, , 3-29.		15
67	Generalized Switch Current Stress Reduction Technique for Coupled-Inductor-Based Single-Switch High Step-Up Boost Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 1863-1875.	3.7	15
68	A Method of Seamless Transitions Between Different Operating Modes for Three-Port DC-DC Converters. IEEE Access, 2021, 9, 59184-59195.	2.6	15
69	A New Six-Level Transformer-Less Grid-Connected Solar Photovoltaic Inverter With Less Leakage Current. IEEE Access, 2022, 10, 63736-63753.	2.6	15
70	S4 grid-connected single-phase transformerless inverter for PV application. , 2016, , .		14
71	Coupled-Inductor Bidirectional DC-DC Converter for EV Charging Applications with Wide Voltage Conversion Ratio and Low Parts Count. , 2019, , .		14
72	A Nonisolated Three-Port DCâ€“DC Converter With Two Bidirectional Ports and Fewer Components. IEEE Transactions on Power Electronics, 2022, 37, 8207-8216.	5.4	14

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73	A New Seven-Level Active Boost Neutral Point Clamped (7L-ABNPC) Inverter. , 2018, , .		13
74	Overview of Recent Advanced Topologies for Transformerless Dual-Grounded Inverters. IEEE Transactions on Power Electronics, 2022, 37, 12679-12704.	5.4	13
75	Ultra-step-up DC-DC converter with integrated autotransformer and coupled inductor. , 2016, , .		11
76	Common-mode voltage reduction techniques of three-phase Quasi Z-Source Inverter for AC drives. , 2013, , .		10
77	Novel High Efficiency H-Bridge Transformerless Inverter for Grid-Connected Single-Phase Photovoltaic Systems. , 2018, , .		10
78	A New Unity-Gain 5-Level Active Neutral-Point-Clamped (UG-5L-ANPC) Inverter. , 2019, , .		10
79	Synthesis and Analysis of Three-Port DC/DC Converters with Two Bidirectional Ports Based on Power Flow Graph Technique. Energies, 2021, 14, 5751.	1.6	10
80	H-Bridge Zero-Voltage Switch-Controlled Rectifier Transformerless Midpoint-Clamped Inverter for Photovoltaic Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 4382-4394.	3.7	9
81	A Common Ground-type Single-Phase Dual Mode Five-Level Switched-Capacitor Transformerless Inverter. , 2020, , .		9
82	A boost type switchedâ€capacitor multiâ€level inverter for renewable energy sources with Selfâ€Voltage balancing of capacitors. International Journal of Energy Research, 2021, 45, 15217-15230.	2.2	9
83	Coupled Inductor Based Soft Switched High Gain Bidirectional DC-DC Converter With Reduced Input Current Ripple. IEEE Transactions on Industrial Electronics, 2023, 70, 1431-1443.	5.2	9
84	Performance of distributed DC power system using quasi Z-Source Inverter based DC/DC converters. , 2013, , .		8
85	Quasi Y-source boost DC-DC converter. , 2015, , .		8
86	A Dual Mode 5-Level Inverter with Wide Input Voltage Range. , 2019, , .		8
87	Topology, Modeling and Control Scheme for a new Seven-Level Inverter With Reduced DC-Link Voltage. IEEE Transactions on Energy Conversion, 2021, 36, 2734-2746.	3.7	8
88	A MOSFET SPICE Model With Integrated Electro-Thermal Averaged Modeling, Aging, and Lifetime Estimation. IEEE Access, 2021, 9, 5545-5554.	2.6	8
89	A novel commonâ€ground switchedâ€capacitor fiveâ€level inverter with adaptive hysteresis current control for gridâ€connected applications. IET Power Electronics, 2021, 14, 2084-2098.	1.5	8
90	Y-source impedance-network-based isolated boost DC/DC converter. , 2014, , .		7

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91	Single-Phase Switched-Capacitor Integrated-Boost Five-level Inverter. , 2018, , .		7
92	Dual polarity DCâ€“DC converter integrated gridâ€tied singleâ€phase transformer less inverter for solar application. Journal of Engineering, 2019, 2019, 3962-3966.	0.6	7
93	Quadratic boost A-source impedance network. , 2016, , .		6
94	Modeling and Analysis of Thermal Resistances and Thermal Coupling Between Power Devices. IEEE Transactions on Electron Devices, 2019, 66, 4302-4308.	1.6	6
95	Single-Stage Common-Ground Boost Inverter (S²CGBI) for Solar Photovoltaic Systems. , 2019, , .		6
96	Five-Level Grid-Tied Inverter Employing Switched-Capacitor Cell with Common-Grounded Feature. , 2020, , .		6
97	Full Soft-Switching Ultra-High Gain DC/DC Converter Using Three-Winding Coupled-Inductor. , 2021, , .		6
98	Active Utilization of a Full DC-Link Voltage in Multilevel Converter. , 2018, , .		5
99	Active Gate Drive to Increase the Power Capacity of Hard-Switched IGBTs. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 2247-2257.	3.7	5
100	A Novel Single-Phase Flying-Inductor Buck-Boost Inverter. , 2019, , .		5
101	A Single-Source Single-Stage Switched-Boost Multilevel Inverter: Operation, Topological Extensions, and Experimental Validation. IEEE Transactions on Power Electronics, 2022, 37, 11258-11271.	5.4	5
102	A-source impedance network. , 2016, , .		4
103	A novel quasi-SEPIC high-voltage boost DC-DC converter. , 2017, , .		4
104	A Classification of Single-Phase Transformerless Inverter Topologies for Photovoltaic Applications. , 2018, , .		4
105	Constant Common-Mode Voltage Transformerless Inverter for Grid-Tied Photovoltaic Application. , 2019, , .		4
106	Improved Cascaded H-Bridge Multilevel Inverters with Voltage-Boosting Capability. Electronics (Switzerland), 2021, 10, 2801.	1.8	4
107	Circuit-Based Rainflow Counting Algorithm in Application of Power Device Lifetime Estimation. Energies, 2022, 15, 5159.	1.6	4
108	Effects of leakage inductances on magnetically-coupled impedance-source networks. , 2014, , .		3

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109	A high voltage gain quasi Z-source isolated DC/DC converter. , 2014, , .		3
110	Multi-Variable Thermal Modeling of Power Devices Considering Mutual Coupling. Applied Sciences (Switzerland), 2019, 9, 3240.	1.3	3
111	A Fault-Tolerant Hybrid Cascaded H-Bridge Topology. , 2019, , .		3
112	A Common-Ground-Type Single-Stage Buck-Boost Inverter with Sinusoidal Output Voltage. , 2021, , .		3
113	Common-Ground Transformerless Inverter with Virtual DC Bus Concept for Single-Phase PV Systems. IEEJ Journal of Industry Applications, 2020, 9, 538-548.	0.9	3
114	A Novel DC/DC Three Port Converter with Fault-Tolerant Ability. , 2022, , .		3
115	A Five-Level Unity-Gain Active Neutral-Point-Clamped Inverter Designed Using Half-Bridges. , 2022, , .		3
116	A new singleâ€stage continuous input currentâ€based high gain boost inverter: Analysis and implementation. International Journal of Circuit Theory and Applications, 2021, 49, 1659-1677.	1.3	2
117	Maximum Power per Ampere Modulation for Cascaded H-Bridge Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2023, 11, 264-275.	3.7	2
118	A New Common-Ground Switched-Boost Five-Level Inverter Suitable for both Single and Three-Phase Grid-Tied Applications. , 2021, , .		2
119	Switched-Boost Common-Ground Five-Level (SBCG5L) Grid-Connected Inverter With Single-Stage Dynamic Voltage Boosting Concept. , 2021, , .		2
120	Timeâ€multiplexed hysteretic control for singleâ€inductor dualâ€input singleâ€output DCâ€DC power converter. International Journal of Circuit Theory and Applications, 0, , .	1.3	2
121	New PWM Strategy to Enable Dual-Mode Operation Capability in Common-Grounded Transformerless Inverters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 7361-7370.	3.7	2
122	A Novel Seven-Level Switched-Boost Common-Ground Inverter With Single-Stage Dynamic Voltage Boosting Gain. , 2022, , .		2
123	AC small signal modeling of PWM Y-source converter by circuit averaging and averaged switch modeling technique. , 2016, , .		1
124	Switched-Capacitor Integrated Single-Phase (2N+1)-Levels Boost Inverter for Grid-Tied Photovoltaic (PV) Applications. , 2019, , .		1
125	Benefits of the Clâ€CCS converter. Journal of Engineering, 2019, 2019, 4527-4531.	0.6	1
126	Model Predictive Control of Seven-Level Single-Phase Boost Inverter without weighting factor for Grid-Tied Photovoltaic Applications. , 2020, , .		1

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127	A transformerless threeâ€level threeâ€phase boost PWM inverter for PV applications. IET Power Electronics, 2021, 14, 1768-1778.	1.5	1
128	A Novel Single-Source Single-Stage Switched-Boost Five-Level (S5B5L) Inverter With Dynamic Voltage Boosting Feature. , 2021, , .		1
129	Trans-inverse (Tx^{−1}) high step-up DC-DC converter. , 2015, , .		0
130	Average Current-Mode Control of PWM A-Source Converter. , 2018, , .		0
131	Indirect Model Predictive Control of a Three-Phase Grid-Connected Siwakoti-H Inverter. , 2019, , .		0
132	A novel five-level switched capacitor type inverter topology for grid-tied photovoltaic application. , 2020, , .		0
133	A Compact Design Using GaN Semiconductor Devices for a Flying Capacitor Five-Level Inverter. , 2021, , .		0
134	Model Predictive Control of a Five-level Active Boost Neutral Point Clamped (5L-ABNPC) Inverter for Transformerless Grid-Connected PV Applications. , 2020, , .		0
135	Evaluation of Thermal Performance of Three-Phase Systems With Zero Sequence Injection. , 2021, , .		0
136	A Dual-Buck-Boost DCâ€“DC/AC Universal Converter. Electronics (Switzerland), 2022, 11, 1973.	1.8	0