

Vinod Khadkikar

List of Publications by Year in descending order

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138
papers

5,701
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138
all docs

138
docs citations

138
times ranked

3809
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancing Electric Power Quality Using UPQC: A Comprehensive Overview. IEEE Transactions on Power Electronics, 2012, 27, 2284-2297.	7.9	567
2	Grid Interconnection of Renewable Energy Sources at the Distribution Level With Power-Quality Improvement Features. IEEE Transactions on Power Delivery, 2011, 26, 307-315.	4.3	392
3	Nighttime Application of PV Solar Farm as STATCOM to Regulate Grid Voltage. IEEE Transactions on Energy Conversion, 2009, 24, 983-985.	5.2	222
4	UPQC-S: A Novel Concept of Simultaneous Voltage Sag/Swell and Load Reactive Power Compensations Utilizing Series Inverter of UPQC. IEEE Transactions on Power Electronics, 2011, 26, 2414-2425.	7.9	196
5	Generalised single-phase p-q theory for active power filtering: simulation and DSP-based experimental investigation. IET Power Electronics, 2009, 2, 67-78.	2.1	185
6	An Enhanced Voltage Sag Compensation Scheme for Dynamic Voltage Restorer. IEEE Transactions on Industrial Electronics, 2015, 62, 2683-2692.	7.9	179
7	A New Virtual Harmonic Impedance Scheme for Harmonic Power Sharing in an Islanded Microgrid. IEEE Transactions on Power Delivery, 2016, 31, 936-945.	4.3	164
8	A New Control Philosophy for a Unified Power Quality Conditioner (UPQC) to Coordinate Load-Reactive Power Demand Between Shunt and Series Inverters. IEEE Transactions on Power Delivery, 2008, 23, 2522-2534.	4.3	162
9	Two Degrees of Freedom Active Damping Technique for LCL Filter-Based Grid Connected PV Systems. IEEE Transactions on Industrial Electronics, 2014, 61, 2795-2803.	7.9	160
10	Planning Active Distribution Networks Considering Multi-DG Configurations. IEEE Transactions on Power Systems, 2014, 29, 785-793.	6.5	138
11	A Novel Structure for Three-Phase Four-Wire Distribution System Utilizing Unified Power Quality Conditioner (UPQC). IEEE Transactions on Industry Applications, 2009, 45, 1897-1902.	4.9	133
12	Application of Artificial Neural Networks for Shunt Active Power Filter Control. IEEE Transactions on Industrial Informatics, 2014, 10, 1765-1774.	11.3	128
13	A Protection Coordination Index for Evaluating Distributed Generation Impacts on Protection for Meshed Distribution Systems. IEEE Transactions on Smart Grid, 2013, 4, 1523-1532.	9.0	127
14	Dynamic Modeling and Control of Interleaved Flyback Module-Integrated Converter for PV Power Applications. IEEE Transactions on Industrial Electronics, 2014, 61, 1377-1388.	7.9	123
15	Grid synchronisation with harmonics and reactive power compensation capability of a permanent magnet synchronous generator-based variable speed wind energy conversion system. IET Power Electronics, 2011, 4, 122.	2.1	122
16	A Novel Type-1 Frequency-Locked Loop for Fast Detection of Frequency and Phase With Improved Stability Margins. IEEE Transactions on Power Electronics, 2016, 31, 2550-2561.	7.9	92
17	Digital signal processor implementation and performance evaluation of split capacitor, four-leg and three H-bridge-based three-phase four-wire shunt active filters. IET Power Electronics, 2011, 4, 463.	2.1	87
18	Direct Control of the Inverter Impedance to Achieve Controllable Harmonic Sharing in the Islanded Microgrid. IEEE Transactions on Industrial Electronics, 2017, 64, 827-837.	7.9	85

#	ARTICLE	IF	CITATIONS
19	Power quality enhancement utilising single-phase unified power quality conditioner: digital signal processor-based experimental validation. IET Power Electronics, 2011, 4, 323.	2.1	80
20	Overview of maximum power point tracking technologies for photovoltaic power systems. , 2011, , .		79
21	Voltage Booster Schemes for Fault Ride-Through Enhancement of Variable Speed Wind Turbines. IEEE Transactions on Sustainable Energy, 2013, 4, 1071-1081.	8.8	79
22	Artificial-Neural-Network-Based Phase-Locking Scheme for Active Power Filters. IEEE Transactions on Industrial Electronics, 2014, 61, 3857-3866.	7.9	77
23	Four-Axis Vector-Controlled Dual-Rotor PMSM for Plug-in Electric Vehicles. IEEE Transactions on Industrial Electronics, 2015, 62, 3202-3212.	7.9	75
24	Replacing the Grid Interface Transformer in Wind Energy Conversion System With Solid-State Transformer. IEEE Transactions on Power Systems, 2017, 32, 2152-2160.	6.5	73
25	A simple new control technique for unified power quality conditioner (UPQC). , 0, , .		69
26	Integrated Photovoltaic and Dynamic Voltage Restorer System Configuration. IEEE Transactions on Sustainable Energy, 2015, 6, 400-410.	8.8	69
27	Optimal Control of Shunt Active Power Filter to Meet IEEE Std. 519 Current Harmonic Constraints Under Nonideal Supply Condition. IEEE Transactions on Industrial Electronics, 2015, 62, 724-734.	7.9	68
28	A Noniterative Optimized Algorithm for Shunt Active Power Filter Under Distorted and Unbalanced Supply Voltages. IEEE Transactions on Industrial Electronics, 2013, 60, 5376-5390.	7.9	67
29	Optimal Sizing of UPQC Considering VA Loading and Maximum Utilization of Power-Electronic Converters. IEEE Transactions on Power Delivery, 2014, 29, 1490-1498.	4.3	63
30	Optimal Current Harmonic Extractor Based on Unified ADALINEs for Shunt Active Power Filters. IEEE Transactions on Power Electronics, 2014, 29, 6383-6393.	7.9	61
31	A Novel Fault-Tolerant DFIG-Based Wind Energy Conversion System for Seamless Operation During Grid Faults. IEEE Transactions on Power Systems, 2014, 29, 1296-1305.	6.5	55
32	Fault Ride Through and Grid Support Topology for the VSC-HVDC Connected Offshore Wind Farms. IEEE Transactions on Power Delivery, 2017, 32, 1592-1604.	4.3	53
33	Incorporating PV Inverter Control Schemes for Planning Active Distribution Networks. IEEE Transactions on Sustainable Energy, 2015, 6, 1224-1233.	8.8	51
34	Enhancing power quality and stability of future smart grid with intermittent renewable energy sources using electric springs. , 2013, , .		50
35	Energy Management of Grid Interconnected Multi-Microgrids Based on P2P Energy Exchange: A Data Driven Approach. IEEE Transactions on Power Systems, 2021, 36, 1546-1562.	6.5	45
36	A New $\{m P\}$ - $\{m Q\}$ - $\{m V\}$ Droop Control Method for an Interline Photovoltaic (I-PV) Power System. IEEE Transactions on Power Delivery, 2013, 28, 658-668.	4.3	43

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37	A Low Component Count Series Voltage Compensation Scheme for DFIG WTs to Enhance Fault Ride-Through Capability. IEEE Transactions on Energy Conversion, 2015, 30, 208-217.	5.2	43
38	Obtaining Performance of Type-3 Phase-Locked Loop Without Compromising the Benefits of Type-2 Control System. IEEE Transactions on Power Electronics, 2018, 33, 1788-1796.	7.9	42
39	Conceptual Study of Unified Power Quality Conditioner (UPQC)., 2006, , .		40
40	Short-Term Reactive Power Planning to Minimize Cost of Energy Losses Considering PV Systems. IEEE Transactions on Smart Grid, 2019, 10, 2923-2935.	9.0	40
41	A Novel SVM Technique With Enhanced Output Voltage Quality for Indirect Matrix Converters. IEEE Transactions on Industrial Electronics, 2019, 66, 832-841.	7.9	39
42	Topology review of single phase grid-connected module integrated converters for PV applications. , 2012, , .		37
43	Fixed and variable power angle control methods for unified power quality conditioner: operation, control and impact assessment on shunt and series inverter kVA loadings. IET Power Electronics, 2013, 6, 1299-1307.	2.1	34
44	A New Ultracapacitor State of Charge Control Concept to Enhance Battery Lifespan of Dual Storage Electric Vehicles. IEEE Transactions on Vehicular Technology, 2018, 67, 10470-10481.	6.3	34
45	An Efficient Vehicle-to-Vehicle (V2V) Energy Sharing Framework. IEEE Internet of Things Journal, 2022, 9, 5315-5328.	8.7	34
46	Novel Single-Phase Cuk-Derived Bridgeless PFC Converter for On-Board EV Charger With Reduced Number of Components. IEEE Transactions on Industry Applications, 2022, 58, 3999-4010.	4.9	33
47	An independent control approach for three-phase four-wire shunt active filter based on three H-bridge topology under unbalanced load conditions. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	32
48	Adaptive Low-Pass Filter Based DC Offset Removal Technique for Three-Phase PLLs. IEEE Transactions on Industrial Electronics, 2018, 65, 9025-9029.	7.9	31
49	A Novel Ten-Switch Topology for Unified Power Quality Conditioner. IEEE Transactions on Power Electronics, 2015, , 1-1.	7.9	30
50	Analysis of Power Flow in UPQC during Voltage Sag and Swell Conditions for Selection of Device Ratings. , 2006, , .		29
51	Adaptive Power Management Strategy for Effective Voltâ€ Ampere Utilization of a Photovoltaic Generation Unit in Standalone Microgrids. IEEE Transactions on Industry Applications, 2018, 54, 1784-1792.	4.9	28
52	Loss Reduction in Radial Distribution Networks Using a Solid-State Transformer. IEEE Transactions on Industry Applications, 2018, 54, 5474-5482.	4.9	28
53	Impact of distributed generation penetration on grid current harmonics considering non-linear loads. , 2012, , .		27
54	A Nine Switch Converter-Based Fault Ride Through Topology for Wind Turbine Applications. IEEE Transactions on Power Delivery, 2016, 31, 1757-1766.	4.3	27

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55	Demand Response Mismatch (DRM): Concept, Impact Analysis, and Solution. IEEE Transactions on Smart Grid, 2014, 5, 1734-1743.	9.0	26
56	A New Fault Ride-Through (FRT) Topology for Induction Generator Based Wind Energy Conversion Systems. IEEE Transactions on Power Delivery, 2019, 34, 1129-1137.	4.3	26
57	A Type-3 PLL for Single-Phase Applications. IEEE Transactions on Industry Applications, 2020, 56, 5533-5542.	4.9	24
58	A Comprehensive Review on CubeSat Electrical Power System Architectures. IEEE Transactions on Power Electronics, 2022, 37, 3161-3177.	7.9	24
59	A Hierarchical Control Strategy With Fault Ride-Through Capability for Variable Frequency Transformer. IEEE Transactions on Energy Conversion, 2015, 30, 132-141.	5.2	23
60	Emerging Power Quality Problems and State-of-the-Art Solutions. IEEE Transactions on Industrial Electronics, 2017, 64, 761-763.	7.9	23
61	An Isolated Bridgeless Cuk SEPIC Converter-Fed Electric Vehicle Charger. IEEE Transactions on Industry Applications, 2022, 58, 2512-2526.	4.9	23
62	Variable Frequency Transformer Configuration for Decoupled Active-Reactive Powers Transfer Control. IEEE Transactions on Energy Conversion, 2016, 31, 906-914.	5.2	20
63	Single-Phase Type-1 Frequency-Fixed FLL for Distorted Voltage Condition. IEEE Transactions on Industrial Electronics, 2021, 68, 3865-3875.	7.9	20
64	A Stable Matching Game for V2V Energy Sharing A User Satisfaction Framework. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 7601-7613.	8.0	20
65	Energy Management Strategy of a Reconfigurable Grid-Tied Hybrid AC/DC Microgrid for Commercial Building Applications. IEEE Transactions on Smart Grid, 2022, 13, 1720-1738.	9.0	20
66	Estimating power losses in Dual Active Bridge DC-DC converter. , 2011, , .		19
67	Adaptive control of grid connected photovoltaic inverter for maximum VA utilization. , 2013, , .		19
68	Implementation of single-phase synchronous d-q reference frame controller for shunt active filter under distorted voltage condition. , 2010, , .		17
69	Interline Photovoltaic (I-PV) power system A novel concept of power flow control and management. , 2011, , .		16
70	A Novel Power-Based Orthogonal Signal Generator for Single-Phase Systems. IEEE Transactions on Power Delivery, 2021, 36, 469-472.	4.3	16
71	Novel control strategies for SSR mitigation and damping power system oscillations in a series compensated wind park. , 2012, , .		14
72	Comparison of Peak Power Tracking Based Electric Power System Architectures for CubeSats. IEEE Transactions on Industry Applications, 2021, 57, 2758-2768.	4.9	13

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73	Improved Power Quality Charging System Based on High Step-Down Gain Bridgeless SEPIC APFC for Light Electric Vehicles. IEEE Transactions on Industry Applications, 2022, 58, 423-434.	4.9	13
74	Novel Step-Up Transformerless Inverter Topology for 1- $\hat{1}$ Grid-Connected Photovoltaic System. IEEE Transactions on Industry Applications, 2021, 57, 2801-2815.	4.9	12
75	Adaptive planning approach for customer DG installations in smart distribution networks. IET Renewable Power Generation, 2018, 12, 81-89.	3.1	11
76	Photovoltaic power plant as FACTS devices in multi-feeder systems. , 2011, , .		10
77	Control of single-phase UPQC in synchronous d-q reference frame. , 2012, , .		10
78	Comprehensive design and control methodology for DC-powered satellite electrical subsystem based on PV and battery. IET Renewable Power Generation, 2020, 14, 2202-2210.	3.1	10
79	Reactive power estimation based control of self supported dynamic voltage restorer (DVR). , 2012, , .		9
80	An improved Extremum-Seeking based MPPT for grid-connected PV systems with partial shading. , 2014, , .		9
81	Gain compensation approach for low-voltage ride-through and dynamic performance improvement of three-phase type-3 PLL. IET Power Electronics, 2020, 13, 1613-1621.	2.1	9
82	A Novel Multiport Converter Interface for Solar Panels of CubeSat. IEEE Transactions on Power Electronics, 2022, 37, 629-643.	7.9	9
83	Electric Vehicle-to-Vehicle Energy Transfer Using On-Board Converters. IEEE Transactions on Transportation Electrification, 2023, 9, 1263-1272.	7.8	9
84	Modeling and Design of Electrical Power Subsystem for CubeSats. , 2019, , .		8
85	A New Multiport DC-DC Converter for DC Microgrid Applications. , 2021, , .		8
86	Parameter Estimation and Grid Synchronization Using a First-Order Frequency-Locked Loop. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-13.	4.7	8
87	Effect of variable PV power on the grid power factor under different load conditions. , 2011, , .		7
88	Interline photovoltaic (I-PV) power plants for voltage unbalance compensation. , 2012, , .		7
89	Nonlinear load sharing in low voltage microgrid using negative virtual harmonic impedance. , 2015, , .		7
90	High-Efficiency Three-Phase Single-Stage Isolated Flyback-Based PFC Converter With a Novel Clamping Circuit. IEEE Transactions on Industry Applications, 2020, 56, 718-729.	4.9	7

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91	An Improved PQ Zeta Converter with Reduced Switch Voltage Stress for Electric Vehicle Battery Charger. , 2020, , .		7
92	Improved Power Quality Charging System Based on High Step Down Gain Bridgeless SEPIC APFC for Light Electric Vehicles. , 2020, , .		7
93	Single-Phase Transfer Delay FLL With Enhanced Performance for Power System Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 349-360.	5.4	6
94	A Novel 1- Dual Input Nine-Level Inverter Topology with Generalized Modulation Technique. IEEE Transactions on Energy Conversion, 2022, , 1-1.	5.2	6
95	Localization in wireless sensor networks by constrained simultaneous perturbation stochastic approximation technique. , 2012, , .		5
96	ADALINE based control strategy for three-phase three-wire UPQC system. , 2014, , .		5
97	An integrated system configuration for electric springs to enhance the stability in future smart grid. , 2015, , .		5
98	Adaptive power management strategy for effective VA utilization in a standalone microgrid. , 2016, , .		5
99	A New High Gain Transformerless Inverter for Single Phase Grid-connected Solar PV Application. , 2019, , .		5
100	A Type-3 PLL for Single-Phase Applications. , 2019, , .		5
101	Comparison Study of Electric Power System Architectures for CubeSat. , 2020, , .		5
102	Enhancing Lifetime of 1U/2U CubeSat Electric Power System With Distributed Architecture and Power-Down Mode. IEEE Transactions on Industry Applications, 2022, 58, 901-913.	4.9	5
103	Benchmarking of Different Orthogonal Signal Generator Configurations for SOGI PLL Applications. , 2021, , .		5
104	Electric Vehicle Trip Chain Information-Based Hierarchical Stochastic Energy Management With Multiple Uncertainties. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 18492-18501.	8.0	5
105	Achieving maximum possible power factor with single-phase shunt active power filter under distorted supply condition. , 2012, , .		4
106	Basic design of UAE's smart microgrid and the simulation analysis using PSCAD. , 2013, , .		4
107	Dynamic analysis of OLTC and voltage regulator under active network management considering different load profiles. , 2017, , .		4
108	A New Step-Up Transformerless Inverter Topology for 1-É, Grid-connected Solar Photovoltaic System. , 2020, , .		4

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109	A Novel Single-Stage Buck-Boost Transformerless Inverter for 1- ϕ Grid-Connected Solar PV Systems. , 2020, , .		4
110	Enhanced transient response and seamless interconnection of multi- ϕ microgrids based on an adaptive control scheme. IET Renewable Power Generation, 2021, 15, 2452-2467.	3.1	4
111	Three-Phase and Single-Phase p-q Theories Applied to Three-Phase Shunt Active Power Filter under Different Operating Conditions: A Comparative Evaluation. International Journal of Emerging Electric Power Systems, 2010, 11, .	0.8	3
112	A Dynamic Voltage Restorer (DVR) based interface scheme for microgrids. , 2014, , .		3
113	Simplified power flow modeling approach considering on-load tap changers. , 2017, , .		3
114	Benchmark model for multi- ϕ orbital transient analysis of satellite electrical power subsystem. IET Renewable Power Generation, 2020, 14, 286-296.	3.1	3
115	Small Signal Analysis and Control of Single-Phase Bridgeless Cuk-based PFC Converter for On-Board EV Charger. , 2021, , .		3
116	Localization in Wireless Sensor Networks by Cross Entropy Method. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2013, , 103-118.	0.3	3
117	DC-Offset Rejection Approaches for Single-Phase Frequency-Locked Loop. , 2020, , .		3
118	An On-Board Fast Charger using New Bridgeless PFC Converter with Reduced DC-Link Capacitance. , 2020, , .		3
119	A Novel EPS Architecture for 1U/2U Cubesats with Enhanced Fault-Tolerant Capability. , 2020, , .		3
120	A comprehensive design and implementation of Doubly Fed Induction Generator for a micro-level Wind Energy Conversion System. , 2013, , .		2
121	Planning active distribution networks considering multi-DG configurations. , 2014, , .		2
122	SPSA-NC: simultaneous perturbation stochastic approximation localization based on neighbor confidence. Wireless Communications and Mobile Computing, 2016, 16, 1570-1587.	1.2	2
123	Closure to "Short-Term Reactive Power Planning to Minimize Cost of Energy Losses Considering PV Systems" IEEE Transactions on Smart Grid, 2020, 11, 1813-1815.	9.0	2
124	A Novel Single-Phase Voltage Boosting Transformerless Inverter Topology for Grid-connected Solar PV Application. , 2021, , .		2
125	Finite State Machine-Based Realization of Sparse Matrix Converter. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2021, 2, 196-204.	3.9	2
126	Constrained Cross Entropy Localization Technique for Wireless Sensor Networks. International Journal of Distributed Sensor Networks, 2015, 11, 267369.	2.2	2

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127	Intelligent edge detector based on multiple edge maps. , 2012, , .		1
128	Control and SRF-q based re-synchronization of a master DG for microgrids. , 2014, , .		1
129	Characteristic comparison of reduced switch converter based energy conversion systems. , 2015, , .		1
130	Comprehensive harmonic current control in an islanded microgrid. , 2017, , .		1
131	A Three Phase Isolated Buck-boost Derived PFC Converter with a Novel Clamping Circuit. , 2018, , .		1
132	Adaptive Control of PV and Diesel Generator Unit in a Standalone Microgrid. , 2019, , .		1
133	ANN Based Power Management Strategy For Standalone Microgrids. , 2021, , .		1
134	A novel control strategy to operate inverter based distributed generation unit as shunt APF in an islanded microgrid. , 2014, , .		0
135	Control and SRF-q based re-synchronization of a master DG for microgrids. , 2014, , .		0
136	Incorporating PV inverter control schemes for planning active distribution networks. , 2016, , .		0
137	Dual Storage Electric Vehicle Energy Management Considering Road Grade. , 2018, , .		0
138	New Submodule Selection Algorithm for Low Device Switching Frequency Modulation of Medium-Voltage Modular Multilevel Converter. , 2020, , .		0