

Chandan Chakraborty

List of Publications by Year in descending order

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114
papers

2,249
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304368

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115
docs citations

115
times ranked

1969
citing authors

#	ARTICLE	IF	CITATIONS
1	Model Reference Adaptive Controller-Based Rotor Resistance and Speed Estimation Techniques for Vector Controlled Induction Motor Drive Utilizing Reactive Power. IEEE Transactions on Industrial Electronics, 2008, 55, 594-601.	5.2	290
2	A Shunt Active Power Filter With Enhanced Performance Using ANN-Based Predictive and Adaptive Controllers. IEEE Transactions on Industrial Electronics, 2011, 58, 421-428.	5.2	270
3	A New Multilevel Inverter Topology With Self-Balancing Level Doubling Network. IEEE Transactions on Industrial Electronics, 2014, 61, 4622-4631.	5.2	161
4	A New Formulation of Reactive-Power-Based Model Reference Adaptive System for Sensorless Induction Motor Drive. IEEE Transactions on Industrial Electronics, 2015, 62, 6797-6808.	5.2	105
5	ZVS-ZCS High Voltage Gain Integrated Boost Converter for DC Microgrid. IEEE Transactions on Industrial Electronics, 2016, 63, 6898-6908.	5.2	92
6	Dual Stator Winding Induction Machine: Problems, Progress, and Future Scope. IEEE Transactions on Industrial Electronics, 2015, 62, 4641-4652.	5.2	84
7	A Carrier-Based PWM Scheme for Neutral Point Voltage Balancing in Three-Level Inverter Extending to Full Power Factor Range. IEEE Transactions on Industrial Electronics, 2017, 64, 1873-1883.	5.2	76
8	New Voltage Control Strategies for VSC-Based DG Units in an Unbalanced Microgrid. IEEE Transactions on Sustainable Energy, 2017, 8, 1127-1139.	5.9	75
9	A New Asymmetric Multilevel Inverter Topology Suitable for Solar PV Applications With Varying Irradiance. IEEE Transactions on Sustainable Energy, 2017, 8, 1496-1506.	5.9	68
10	Integration of Solar PV With Low-Voltage Weak Grid System: Using Normalized Laplacian Kernel Adaptive Kalman Filter and Learning Based InC Algorithm. IEEE Transactions on Power Electronics, 2019, 34, 10746-10758.	5.4	57
11	Active Power Flow Control Between DC Microgrids. IEEE Transactions on Smart Grid, 2019, 10, 5712-5723.	6.2	57
12	Performance of Three-Phase Asymmetric Cascaded Bridge (16 \times 4 \times 1) Multilevel Inverter. IEEE Transactions on Industrial Electronics, 2015, 62, 5983-5992.	5.2	50
13	A Novel Method of Frequency Regulation in Microgrid. IEEE Transactions on Industry Applications, 2019, 55, 111-121.	3.3	45
14	Asymmetric Cascaded H-Bridge Multilevel Inverter With Single DC Source per Phase. IEEE Transactions on Industrial Electronics, 2020, 67, 5398-5409.	5.2	39
15	New series of MRAS for speed estimation of vector controlled induction motor drive. , 2014, , .		31
16	Disturbance Rejection Analysis and FPGA-Based Implementation of a Second-Order Sliding Mode Controller Fed Induction Motor Drive. IEEE Transactions on Energy Conversion, 2018, 33, 1453-1462.	3.7	30
17	A Direct PWM Technique for a Single-Phase Full-Bridge Inverter Through Controlled Capacitor Charging. IEEE Transactions on Industrial Electronics, 2008, 55, 2912-2922.	5.2	29
18	An Improved PWM Scheme for Three-Level Inverter Extending Operation Into Overmodulation Region With Neutral-Point Voltage Balancing for Full Power-Factor Range. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 1527-1539.	3.7	29

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19	Three-Phase Hybrid Cascaded Multilevel Inverter Using Topological Modules With 1:7 Ratio of Asymmetry. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 2302-2314.	3.7	28
20	A New Algorithm for Small-Signal Analysis of DC-DC Converters. IEEE Transactions on Industrial Informatics, 2014, 10, 628-636.	7.2	25
21	A Series Voltage Regulator for the Radial DC Microgrid. IEEE Transactions on Sustainable Energy, 2019, 10, 127-136.	5.9	24
22	Synchronous Generator With Embedded Brushless Synchronous Exciter. IEEE Transactions on Energy Conversion, 2019, 34, 1242-1254.	3.7	24
23	Symmetry-Breaking Bifurcation in Series-Parallel Load Resonant DC-DC Converters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 778-787.	3.5	23
24	An Improved Modulation Strategy for Fast Capacitor Voltage Balancing of Three-Level NPC Inverters. IEEE Transactions on Industrial Electronics, 2019, 66, 7498-7509.	5.2	22
25	A New Optimal Current Control Technique for Dual Stator Winding Induction Generator. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 820-832.	3.7	21
26	Performance of Brushless Induction Excited Synchronous Generator. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 2571-2582.	3.7	20
27	A Unified Control Structure for Grid Connected and Islanded Mode of Operation of Voltage Source Converter Based Distributed Generation Units Under Unbalanced and Non-Linear Conditions. IEEE Transactions on Power Delivery, 2020, 35, 1758-1768.	2.9	20
28	A hybrid multilevel inverter topology with third harmonic injection for grid connected photovoltaic central inverters. , 2012, , .		18
29	An E-STATCOM Based Solution for Smoothing Photovoltaic and Wind Power Fluctuations In a Microgrid Under Unbalanced Conditions. IEEE Transactions on Power Systems, 2022, 37, 1482-1494.	4.6	18
30	Cascaded H-Bridge & neutral point clamped hybrid asymmetric multilevel inverter topology for grid interactive transformerless photovoltaic power plant. , 2012, , .		17
31	A New Configuration of Dual Stator Induction Generator Employing Series and Shunt Capacitors. IEEE Transactions on Energy Conversion, 2018, 33, 762-772.	3.7	17
32	Seven-Level Packed U-Cell (PUC) Converter With Natural Balancing of Capacitor Voltages. IEEE Transactions on Industry Applications, 2020, 56, 5234-5244.	3.3	16
33	Mathematical Modelling of a System for Solar PV Efficiency Improvement Using Compressed Air for Panel Cleaning and Cooling. Energies, 2021, 14, 4072.	1.6	15
34	A new model reference adaptive formulation to estimate stator resistance in field oriented induction motor drive. , 2013, , .		13
35	Brushless Induction Excited Synchronous Generator With Induction Machine Operating in Plugging Mode. IEEE Transactions on Industry Applications, 2018, 54, 5748-5759.	3.3	13
36	An Alternative Adaptation Mechanism for Model Reference Adaptive System Based Sensorless Induction Motor Drive. Electric Power Components and Systems, 2010, 38, 710-736.	1.0	12

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37	A novel control principle for a high frequency transformer based multiport converter for integration of renewable energy sources. , 2013, , .		12
38	Three-Phase Trinary Asymmetric Multilevel Inverter With Single DC Source and Open-Loop Control. IEEE Open Journal of Industry Applications, 2021, 2, 259-277.	4.8	12
39	Adaptive Estimation of Speed and Rotor Time Constant for the Vector Controlled Induction Motor Drive Using Reactive Power. , 2007, , .		10
40	Buck-Boost Buck CCM-DCM Converter for PV Based DC Standalone System. , 2018, , .		10
41	Capacitor Size Reduction of Multilevel Inverters by Utilizing Neutral Shifting. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 2243-2254.	3.7	9
42	Performance Improvement of PV-Fed Hybrid Modular Multilevel Converter Under Partial Shading Condition. IEEE Transactions on Industrial Electronics, 2021, 68, 9652-9664.	5.2	9
43	Predictive and Adaptive ANN (Adaline) Based Harmonic Compensation for Shunt Active Power Filter. , 2008, , .		8
44	Performance and Analysis of a New Brushless Synchronous Generator for DC Microgrid Application. IEEE Transactions on Industry Applications, 2020, 56, 3137-3148.	3.3	8
45	Universal Active Power Control Converter for DC-Microgrids With Common Energy Storage. IEEE Open Journal of Industry Applications, 2021, 2, 21-35.	4.8	8
46	Performance of Reduced-DC-Source-Based Three-Phase High-Resolution Multilevel Inverter With Optimal Asymmetry. IEEE Transactions on Power Electronics, 2022, 37, 10713-10726.	5.4	8
47	Third harmonic injected binary hybrid multilevel inverter for grid connected photovoltaic system. , 2011, , .		7
48	Multilevel inverters with level doubling network: A new topological variation. , 2013, , .		7
49	Hybrid modulation technique for binary asymmetrical cascaded multilevel inverter for PV application. , 2016, , .		7
50	Reactive Power Based Speed Sensorless Controller for Permanent Magnet Synchronous Motor Drive. , 2006, , .		6
51	Single Phase, Full Bridge, Controlled Capacitor Charging (CCC) Type Inverter. , 2006, , .		6
52	MRAS-based speed estimation techniques for vector controlled double inverter-fed slipping induction motor drive. , 2008, , .		6
53	A novel model reference adaptive controller for estimation of speed and stator resistance for vector controlled induction motor drives. , 2010, , .		6
54	A New V × l based adaptive speed sensorless four quadrant vector controlled induction motor drive. , 2010, , .		6

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55	Dual stator induction generator with controllable reactive power capability. , 2014, , .		6
56	A new series of brushless and permanent magnetless synchronous machines. , 2017, , .		6
57	Modular Multilevel Converter for Multifunctional Battery Management System of Electric Vehicle. , 2018, , .		6
58	A New Model for Estimation of Energy Extraction from Bifacial Photovoltaic Modules. Energies, 2021, 14, 5089.	1.6	6
59	Brushless Synchronous Generator-Unidirectional Rectifier for Offshore Wind Energy Conversion System. IEEE Transactions on Energy Conversion, 2022, 37, 1060-1074.	3.7	6
60	PV-Supercapacitor Cascaded Topology for Primary Frequency Responses and Dynamic Inertia Emulation. Energies, 2021, 14, 8347.	1.6	6
61	Sensorless control of grid-connected doubly-fed slip-ring induction motor drive. , 2009, , .		5
62	Harmonic elimination and reactive power compensation through a shunt active power filter by twin neural networks with predictive and adaptive properties. , 2009, , .		5
63	Bifurcations in load resonant DC-DC converters. , 2010, , .		5
64	Asymmetric multilevel inverter with quasi-linear power distribution ratio for grid connected photovoltaic converters. , 2013, , .		5
65	Full bridge level doubling network assisted multilevel DC link inverter. , 2016, , .		5
66	Dynamic voltage compensation using Series Voltage Regulator for DC-microgrid. , 2016, , .		5
67	A hybrid modular multilevel converter for solar power integration. , 2016, , .		5
68	A Novel Single Coupled-Inductor Boost TPC With Two Inductively Interfaced Ports Suitable for Renewable Energy Integration. IEEE Transactions on Industrial Electronics, 2023, 70, 4705-4715.	5.2	5
69	Experimental validation of very-low and zero speed operation of a flux-eliminated adaptive estimator for vector controlled IM drive. , 2009, , .		4
70	Quasi-periodic route to chaos in load resonant DC-DC converters. , 2010, , .		4
71	Symmetry-breaking bifurcation in load resonant dc-dc converters. , 2011, , .		4
72	ANN based sensorless vector controlled induction motor drive suitable for four quadrant operation. , 2014, , .		4

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73	A novel method of frequency regulation in microgrid. , 2016, , .		4
74	Seven-Level Packed U-Cell (PUC) Converter with Natural Balancing of Capacitor Voltages. , 2018, , .		4
75	Performance and Stability of Brushless Induction Excited Synchronous Generator Operating in Self-Excited Mode for Wind Energy Conversion System. IEEE Transactions on Energy Conversion, 2021, 36, 919-929.	3.7	4
76	Shunt active power filter/STATCOM topology for medium/high power applications: Parallel inverters operating at different switching frequencies. , 2010, , .		3
77	Electro-thermal modeling of Lithium-ion cell for higher discharge rate applications. , 2016, , .		3
78	Brushless induction excited synchronous motor (BinSyM): A new motor for high power applications. , 2016, , .		3
79	Photovoltaic central inverters: Performance evaluation and comparative assessment. , 2017, , .		3
80	Loss Analysis of Resonant Inductive Power Transfer System for Wireless Charging of e-Rickshaw. , 2019, , .		3
81	Full-Bridge Converter With Naturally Balanced Modular Cascaded H-Bridge Waveshapers for Offshore HVDC Transmission. IEEE Transactions on Sustainable Energy, 2020, 11, 271-281.	5.9	3
82	Synthesis of Three-Port Converter from existing dc-dc converters for PV based dc stand-alone system. , 2020, , .		3
83	ANN (Adaline) Based Harmonic Compensation for Shunt Active Power Filter with Capacitor Voltage Based Predictive Technique. , 2008, , .		2
84	Adaline controlled 3-phase 3-wire shunt active power filter with enhanced performance using the capacitor voltage feedback. , 2009, , .		2
85	Analysis, design, fabrication and testing of three actuators based electromagnetic levitation system for vehicle applications. , 2013, , .		2
86	Non-isolated high-frequency-link to feed auxiliary bridges of asymmetrical cascaded multilevel inverter. , 2014, , .		2
87	Improving the performance of speed sensorless induction motor drive with rotor broken bar failure by stator current signature analysis. , 2014, , .		2
88	A new control technique for dual stator induction generator used in standalone applications. , 2015, , .		2
89	A new dual inverter based solar PV system with maximum power point tracking capability. , 2015, , .		2
90	Performance of a new brushless synchronous generator with an embedded induction machine to regulate excitation. , 2016, , .		2

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91	Brushless induction synchronous generator. , 2016, , .		2
92	Brushless induction excited synchronous generator with induction machine operating in plugging mode. , 2016, , .		2
93	A new technique for capacitor balancing of three-level flying-capacitor multilevel inverter. , 2017, , .		2
94	Topological investigation on interlinking converter in a hybrid microgrid. , 2018, , .		2
95	A Switched Capacitor Series Voltage Controller with Fault Current Limiting Capability for DC Microgrid Application. , 2019, , .		2
96	Design of a 4/6-pole Synchronous Machine with Embedded Brushless Synchronous Exciter (SEBSE). , 2019, , .		2
97	Voltage Fault Ride-Through Operation of Solar PV Units: A Review and Way Forward. , 2019, , .		2
98	Universal Active Power Flow Controller with Common Energy Storage Support for DC-microgrids. , 2019, , .		2
99	A Pulse density modulated LLC resonant converter based battery charger for HEV/PHEV application. , 2019, , .		2
100	A reduced switch transformer-less dual hybrid active power filter. , 2009, , .		1
101	Determination of stable region of controller parameters for series-parallel resonant converter with capacitive output filter. , 2011, , .		1
102	A static synchronous compensator (STATCOM) using parallel inverters operating at different switching frequencies. , 2011, , .		1
103	A simple time domain approach for harmonic, load unbalance and reactive power compensation. , 2013, , .		1
104	A brushless generation system for microgrid operation utilizing dual stator induction generator. , 2014, , .		1
105	A New Brushless Synchronous Generator for DC Micro-grid Application. , 2018, , .		1
106	A Brushless Synchronous Generator for Standalone DC Applications. , 2019, , .		1
107	Brushless and Magnetless Synchronous Generator for Standalone DC load with Vienna Rectifier. , 2020, , .		1
108	Multilevel Inverter Topology Using Multiple Level Doubling Networks and Single DC Source Per Phase. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
109	Increasing resolution in three-phase cascaded asymmetrical multilevel inverters. , 2014, , .		0
110	Thyristor-MOSFET hybrid single-phase transformerless H-5 photovoltaic string-converter. , 2016, , .		0
111	Asymmetrical cascaded multilevel inverter with single DC source using high frequency resonant converter. , 2016, , .		0
112	Self-Balancing Trinary Asymmetric Three-Phase Multilevel Inverter. , 2018, , .		0
113	Three-level Vienna Rectifier with a Brushless and Permanent Magnetless Generator for Wind Energy Conversion Systems. Power Electronics and Drives, 2022, 7, 84-102.	0.6	0
114	A composite electrochemical-thermal model for the determination of thermal profiles of lithium-ion cell for electric vehicle application. Electrical Engineering, 0, , .	1.2	0