

# Mahesh Kumar Mishra

## List of Publications by Citations

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160  
papers

3,799  
citations

38  
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210  
ext. papers

5,195  
ext. citations

4.5  
avg, IF

6.28  
L-index

#	Paper	IF	Citations
160	Adaptive Droop Control Strategy for Load Sharing and Circulating Current Minimization in Low-Voltage Standalone DC Microgrid. <i>IEEE Transactions on Sustainable Energy</i> , <b>2015</b> , 6, 132-141	8.2	250
159	Design and Analysis of Novel Control Strategy for Battery and Supercapacitor Storage System. <i>IEEE Transactions on Sustainable Energy</i> , <b>2014</b> , 5, 1137-1144	8.2	181
158	Dynamic Energy Management of Renewable Grid Integrated Hybrid Energy Storage System. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 7728-7737	8.9	179
157	Variable Perturbation Size Adaptive P&O MPPT Algorithm for Sudden Changes in Irradiance. <i>IEEE Transactions on Sustainable Energy</i> , <b>2014</b> , 5, 718-728	8.2	165
156	. <i>IEEE Transactions on Energy Conversion</i> , <b>2014</b> , 29, 602-610	5.4	152
155	A Supervisory Power Management System for a Hybrid Microgrid With HESS. <i>IEEE Transactions on Industrial Electronics</i> , <b>2017</b> , 64, 3640-3649	8.9	85
154	A Modified Three-Phase Four-Wire UPQC Topology With Reduced DC-Link Voltage Rating. <i>IEEE Transactions on Industrial Electronics</i> , <b>2013</b> , 60, 3555-3566	8.9	83
153	DC Grid Voltage Regulation Using New HESS Control Strategy. <i>IEEE Transactions on Sustainable Energy</i> , <b>2017</b> , 8, 772-781	8.2	80
152	Interphase AC/AC Topology for Voltage Sag Supporter. <i>IEEE Transactions on Power Electronics</i> , <b>2010</b> , 25, 514-518	7.2	79
151	An Investigation on Design and Switching Dynamics of a Voltage Source Inverter to Compensate Unbalanced and Nonlinear Loads. <i>IEEE Transactions on Industrial Electronics</i> , <b>2009</b> , 56, 2802-2810	8.9	77
150	Operation of a DSTATCOM in voltage control mode. <i>IEEE Transactions on Power Delivery</i> , <b>2003</b> , 18, 258-264	4.3	76
149	. <i>IEEE Transactions on Energy Conversion</i> , <b>2015</b> , 30, 150-160	5.4	74
148	. <i>IEEE Transactions on Power Delivery</i> , <b>2008</b> , 23, 2310-2317	4.3	72
147	DC Capacitor Voltage Equalization in Neutral Clamped Inverters for DSTATCOM Application. <i>IEEE Transactions on Industrial Electronics</i> , <b>2010</b> , 57, 2768-2775	8.9	71
146	A Voltage-Controlled DSTATCOM for Power-Quality Improvement. <i>IEEE Transactions on Power Delivery</i> , <b>2014</b> , 29, 1499-1507	4.3	67
145	Grid Adaptive Power Management Strategy for an Integrated Microgrid With Hybrid Energy Storage. <i>IEEE Transactions on Industrial Electronics</i> , <b>2017</b> , 64, 2884-2892	8.9	64
144	An Improved Direct AC/AC Converter for Voltage Sag Mitigation. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 21-29	8.9	63

143	A DSTATCOM Topology With Reduced DC-Link Voltage Rating for Load Compensation With Nonstiff Source. <i>IEEE Transactions on Power Electronics</i> , <b>2012</b> , 27, 1201-1211	7.2	63
142	A Fast-Acting DC-Link Voltage Controller for Three-Phase DSTATCOM to Compensate AC and DC Loads. <i>IEEE Transactions on Power Delivery</i> , <b>2009</b> , 24, 2291-2299	4.3	63
141	Control schemes for equalization of capacitor voltages in neutral clamped shunt compensator. <i>IEEE Transactions on Power Delivery</i> , <b>2003</b> , 18, 538-544	4.3	63
140	. <i>IEEE Transactions on Sustainable Energy</i> , <b>2014</b> , 5, 313-322	8.2	59
139	An Improved Hybrid DSTATCOM Topology to Compensate Reactive and Nonlinear Loads. <i>IEEE Transactions on Industrial Electronics</i> , <b>2014</b> , 61, 6517-6527	8.9	55
138	. <i>IEEE Transactions on Power Delivery</i> , <b>2014</b> , 29, 2261-2269	4.3	55
137	A Minimally Switched Control Algorithm for Three-Phase Four-Leg VSI Topology to Compensate Unbalanced and Nonlinear Load. <i>IEEE Transactions on Power Electronics</i> , <b>2008</b> , 23, 1935-1944	7.2	53
136	Control of photovoltaic-based low-voltage dc microgrid system for power sharing with modified droop algorithm. <i>IET Power Electronics</i> , <b>2016</b> , 9, 1132-1143	2.2	52
135	Predictive Voltage Control of Transformerless Dynamic Voltage Restorer. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 2693-2697	8.9	50
134	A Novel Method of Load Compensation Under Unbalanced and Distorted Voltages. <i>IEEE Transactions on Power Delivery</i> , <b>2007</b> , 22, 288-295	4.3	49
133	Dual $\mathcal{P}\mathcal{S}$ - $\mathcal{Q}\mathcal{S}$ Theory Based Energy-Optimized Dynamic Voltage Restorer for Power Quality Improvement in a Distribution System. <i>IEEE Transactions on Industrial Electronics</i> , <b>2019</b> , 66, 2946-2955	8.9	48
132	Particle Swarm Optimization-Based Feedback Controller for Unified Power-Quality Conditioner. <i>IEEE Transactions on Power Delivery</i> , <b>2010</b> , 25, 2814-2824	4.3	47
131	A control algorithm for single-phase active power filter under non-stiff voltage source. <i>IEEE Transactions on Power Electronics</i> , <b>2006</b> , 21, 822-825	7.2	47
130	A Grid-Connected Dual Voltage Source Inverter With Power Quality Improvement Features. <i>IEEE Transactions on Sustainable Energy</i> , <b>2015</b> , 6, 482-490	8.2	46
129	. <i>IEEE Transactions on Energy Conversion</i> , <b>2016</b> , 31, 697-705	5.4	46
128	An Optimization-Based Algorithm for Shunt Active Filter Under Distorted Supply Voltages. <i>IEEE Transactions on Power Electronics</i> , <b>2009</b> , 24, 1223-1232	7.2	44
127	. <i>IEEE Transactions on Energy Conversion</i> , <b>2017</b> , 32, 330-339	5.4	42
126	Dynamic energy management of micro grids using battery super capacitor combined storage <b>2012</b> ,		41

125	Dynamic Hysteresis Current Control to Minimize Switching for Three-Phase Four-Leg VSI Topology to Compensate Nonlinear Load. <i>IEEE Transactions on Power Electronics</i> , <b>2010</b> , 25, 1935-1942	7.2	40
124	Design and Stability Analysis of DC Microgrid With Hybrid Energy Storage System. <i>IEEE Transactions on Sustainable Energy</i> , <b>2019</b> , 10, 1603-1612	8.2	39
123	Mitigation of Voltage Sags With Phase Jumps by UPQC With PSO-Based ANFIS. <i>IEEE Transactions on Power Delivery</i> , <b>2011</b> , 26, 2761-2773	4.3	38
122	Effective utilization of unified power quality conditioner for interconnecting PV modules with grid using power angle control method. <i>International Journal of Electrical Power and Energy Systems</i> , <b>2013</b> , 48, 131-138	5.1	37
121	Improved hysteresis current control of three-level inverter for distribution static compensator application. <i>IET Power Electronics</i> , <b>2009</b> , 2, 517-526	2.2	37
120	A Multifunctional DSTATCOM Operating Under Stiff Source. <i>IEEE Transactions on Industrial Electronics</i> , <b>2014</b> , 61, 3131-3136	8.9	34
119	Design and Analysis of User-Defined Constant Switching Frequency Current-Control-Based Four-Leg DSTATCOM. <i>IEEE Transactions on Power Electronics</i> , <b>2009</b> , 24, 2148-2158	7.2	34
118	. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 6024-6034	8.9	31
117	Constant switching frequency band controller for dynamic voltage restorer. <i>IET Power Electronics</i> , <b>2010</b> , 3, 657	2.2	31
116	Three-leg inverter-based distribution static compensator topology for compensating unbalanced and non-linear loads. <i>IET Power Electronics</i> , <b>2015</b> , 8, 2076-2084	2.2	28
115	Online condition monitoring system for substation and service transformers. <i>IET Electric Power Applications</i> , <b>2017</b> , 11, 1187-1195	1.8	25
114	Minimization of VA loading of Unified Power Quality Conditioner (UPQC) <b>2009</b> ,		25
113	A new compensation algorithm for balanced and unbalanced distribution systems using generalized instantaneous reactive power theory. <i>Electric Power Systems Research</i> , <b>2001</b> , 60, 29-37	3.5	20
112	Study on the design and switching dynamics of hysteresis current controlled four-leg voltage source inverter for load compensation. <i>IET Power Electronics</i> , <b>2018</b> , 11, 310-319	2.2	19
111	An Efficient Wind Speed Computation Method Using Sliding Mode Observers in Wind Energy Conversion System Control Applications. <i>IEEE Transactions on Industry Applications</i> , <b>2020</b> , 56, 730-739	4.3	19
110	An Improved Current Controller for Grid Connected Voltage Source Converter in Microgrid Applications. <i>IEEE Transactions on Sustainable Energy</i> , <b>2015</b> , 6, 595-605	8.2	18
109	Energy management of hybrid microgrid with hybrid energy storage system <b>2015</b> ,		17
108	Instantaneous Symmetrical Component Theory Based Parallel Grid Side Converter Control Strategy for Microgrid Power Management. <i>IEEE Transactions on Sustainable Energy</i> , <b>2019</b> , 10, 682-692	8.2	16

107	Circulating current minimization and current sharing control of parallel boost converters based on Droop Index <b>2013</b> ,		16
106	Integration of PV/battery hybrid energy conversion system to the grid with power quality improvement features <b>2013</b> ,		16
105	DSTATCOM topologies for three-phase high power applications. <i>International Journal of Power Electronics</i> , <b>2010</b> , 2, 107	0.2	16
104	Interturn Faults Detection of Transformers by Diagnosis of Neutral Current. <i>IEEE Transactions on Power Delivery</i> , <b>2016</b> , 31, 1096-1105	4.3	15
103	A new adaptive P&O MPPT algorithm based on FSCC method for photovoltaic system <b>2013</b> ,		14
102	An Adaptive Approach for Effective Power Management in DC Microgrid Based on Virtual Generation in Distributed Energy Sources. <i>IEEE Transactions on Industrial Informatics</i> , <b>2020</b> , 16, 362-372	11.9	14
101	Adaptive perturb & observe MPPT algorithm for photovoltaic system <b>2013</b> ,		13
100	Unified shunt compensator algorithm based on generalised instantaneous reactive power theory. <i>IET Generation, Transmission and Distribution</i> , <b>2001</b> , 148, 583		13
99	Coupled inductor-based single-stage high gain DC/AC buckBoost inverter. <i>IET Power Electronics</i> , <b>2016</b> , 9, 1590-1599	2.2	13
98	Multisource Switched Capacitor Based Boost Multilevel Inverter for Photovoltaic-Based Systems. <i>IEEE Transactions on Power Electronics</i> , <b>2020</b> , 35, 2558-2570	7.2	13
97	Coordinated control and energy management of hybrid energy storage system in PV system <b>2014</b> ,		12
96	User-defined constant switching frequency current control strategy for a four-leg inverter. <i>IET Power Electronics</i> , <b>2009</b> , 2, 335-345	2.2	12
95	Load compensation for systems with non-stiff source using state feedback. <i>Electric Power Systems Research</i> , <b>2003</b> , 67, 35-44	3.5	12
94	A new STATCOM topology to compensate loads containing AC and DC components		12
93	SRF based current controller using PI and HC regulators for DSTATCOM with SPWM switching. <i>International Journal of Electrical Power and Energy Systems</i> , <b>2015</b> , 67, 87-100	5.1	11
92	A three port high gain non-isolated DC-DC converter for photovoltaic applications <b>2016</b> ,		11
91	Novel adaptive P&O MPPT algorithm for photovoltaic system considering sudden changes in weather condition <b>2013</b> ,		11
90	A new algorithm for active shunt filters using instantaneous reactive power theory. <i>IEEE Power Engineering Review</i> , <b>2000</b> , 20, 56-58		11

89	Stator Winding Inter-turn Insulation Fault Detection in Induction Motors by Symmetrical Components Method. <i>Electric Power Components and Systems</i> , <b>2008</b> , 36, 741-753	1	10
88	Fuzzy logic based supervision of DC link PI control in a DSTATCOM <b>2008</b> ,		10
87	Comparison of single phase shunt active power filter algorithms <b>2006</b> ,		10
86	A Unified Control Scheme for a Standalone Solar-PV Low Voltage DC Microgrid System With HESS. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , <b>2020</b> , 8, 1351-1360	5.6	10
85	Grid interactive combined supercapacitor/battery energy storage system with power quality features <b>2015</b> ,		9
84	A new control strategy for interfacing battery supercapacitor storage systems for PV system <b>2014</b> ,		9
83	Compensation of voltage sags and harmonics with phase-jumps through DVR with minimum VA rating using Particle Swarm Optimization <b>2009</b> ,		9
82	Design of External Inductor for Improving Performance of Voltage-Controlled DSTATCOM. <i>IEEE Transactions on Industrial Electronics</i> , <b>2016</b> , 1-1	8.9	9
81	Grid tied single-stage inverter for low-voltage PV systems with reactive power control. <i>IET Power Electronics</i> , <b>2018</b> , 11, 1766-1773	2.2	8
80	Synchronous reference frame based current controller with SPWM switching strategy for DSTATCOM applications <b>2012</b> ,		8
79	Droop characteristics based damping and inertia emulation of DC link in a hybrid microgrid. <i>IET Renewable Power Generation</i> , <b>2020</b> , 14, 1044-1052	2.9	7
78	Instantaneous symmetrical component theory based algorithm for characterization of three phase distorted and unbalanced voltage sags <b>2013</b> ,		7
77	A DSP-based Integrated Hardware Set-up for a DSTATCOM: Design, Development, and Implementation Issues. <i>IETE Journal of Research</i> , <b>2010</b> , 56, 11	0.9	7
76	Power quality survey in a technological institute <b>2009</b> ,		7
75	Design of passive filter components for switching band controlled DVR <b>2008</b> ,		7
74	A Novel Load Compensation Algorithm under Unbalanced and Distorted Supply Voltages. <i>International Journal of Emerging Electric Power Systems</i> , <b>2007</b> , 8,	1.4	7
73	A Study on Design and Dynamics of Voltage Source Inverter in Current Control Mode to Compensate Unbalanced and Non-linear Loads <b>2006</b> ,		7
72	Energy conservation and power quality improvement with voltage controlled DSTATCOM <b>2013</b> ,		6

71	A modified DSTATCOM topology with reduced VSI rating, DC link voltage, and filter size <b>2013,</b>		6
70	Power management of grid connected hybrid microgrid with dual voltage source inverter <b>2016,</b>		6
69	Application of hybrid energy storage system in a grid interactive microgrid environment <b>2015,</b>		5
68	Power management based on the operating conditions of grid, microgrid and hybrid storage <b>2015,</b>		5
67	Proportional droop index algorithm for load sharing in DC microgrid <b>2014,</b>		5
66	Complex wavelet based control strategy for UPQC <b>2010,</b>		5
65	Rating and design issues of DVR injection transformer. <i>International Journal of Power Electronics,</i> <b>2010,</b> 2, 143	0.2	5
64	PSO based power sharing scheme for an islanded DC microgrid system <b>2017,</b>		4
63	Current sharing control strategy of parallel inverters using instantaneous symmetrical component theory <b>2014,</b>		4
62	Rating and design issues of DVR injection transformer <b>2008,</b>		4
61	A development and implementation of DSP based DSTATCOM to compensate unbalanced nonlinear loads <b>2006,</b>		4
60	Wing Technique: A Novel Approach for the Detection of Stator Winding Inter-Turn Short Circuit and Open Circuit Faults in Three Phase Induction Motors. <i>Journal of Power Electronics,</i> <b>2012,</b> 12, 208-214	0.9	4
59	A high gain grid connected single stage inverter system with reactive power control <b>2017,</b>		3
58	LCL filter with passive damping for DSTATCOM using PI and HC regulators in dq0 current controller for load compensation. <i>Sustainable Energy, Grids and Networks,</i> <b>2015,</b> 2, 1-14	3.6	3
57	A dual three-leg VSI based DSTATCOM in three-phase four-wire distribution systems <b>2015,</b>		3
56	LCL filter based UPQC configuration for power quality improvement <b>2016,</b>		3
55	Dual distribution static compensator for three-phase four-wire distribution system. <i>IET Generation, Transmission and Distribution,</i> <b>2016,</b> 10, 399-411	2.5	3
54	Design and development of real-time small-scale wind turbine simulator <b>2014,</b>		3

53	A single stage high gain buck-boost inverter with coupled inductor <b>2014</b> ,		3
52	Analysis and control of DC-DC boost converter using average power balance control (APBC) <b>2012</b> ,		3
51	A AC-AC converter based topology for mitigation of voltage sag with phase jump <b>2013</b> ,		3
50	Modeling of a four-leg inverter based DSTATCOM for load compensation <b>2010</b> ,		3
49	Capacitor voltage balancing in neutral clamped inverters for DSTATCOM application <b>2009</b> ,		3
48	Online electricity theft detection and prevention scheme for smart cities. <i>IET Smart Cities</i> , <b>2020</b> , 2, 155-168		3
47	A comparative study of control theories for realizing APFs in distribution power systems <b>2016</b> ,		3
46	Single Phase Dynamic Voltage Restorer topology based on five-level ground point shifting inverter <b>2017</b> ,		2
45	Design of current mode controlled SEPIC DC-DC converter for MPPT control of wind energy conversion systems <b>2015</b> ,		2
44	A Comparative Performance Study of Advanced PLLs for Grid Synchronization <b>2020</b> ,		2
43	An improved droop control algorithm for load sharing and circulating current control for parallel DC-DC converters in standalone DC microgrid <b>2014</b> ,		2
42	Power quality improvement using Zig-Zag transformer and DSTATCOM in three phase power distribution system <b>2013</b> ,		2
41	Control algorithm for a PV based hybrid microgrid <b>2015</b> ,		2
40	MPP tracking of PV based low voltage DC microgrid system with adaptive droop algorithm <b>2015</b> ,		2
39	Modified DSTATCOM Topology with Reduced DC Link Voltage for Reactive and Harmonic Power Compensation of Unbalanced Nonlinear Load in Distribution System. <i>International Journal of Emerging Electric Power Systems</i> , <b>2014</b> , 15, 263-277	1.4	2
38	Improved Load Compensation using Harmonic Compensator in dq0 Current Controller for DSTATCOM. <i>International Journal of Emerging Electric Power Systems</i> , <b>2014</b> , 15, 569-589	1.4	2
37	A control algorithm for flexible operation of DSTATCOM for power quality improvement in voltage and current control mode <b>2012</b> ,		2
36	A multi-functional DSTATCOM operating in voltage control mode <b>2013</b> ,		2



35	A hybrid topology for reducing DC link voltage rating in DSTATCOM applications <b>2011,</b>		2
34	Reduced switching frequency algorithm for three-level diode clamped inverter based DVR <b>2011,</b>		2
33	Compensation of voltage sags with phase-jumps through DVR with minimum VA rating using PSO <b>2009,</b>		2
32	Ramp based constant frequency current control for DSTATCOM. <i>International Journal of Power Electronics, 2009, 1, 249</i>	0.2	2
31	A novel constant switching frequency strategy for a three-leg DSTATCOM. <i>Canadian Conference on Electrical and Computer Engineering, 2008,</i>		2
30	A Fast Transient Response Single Phase Active Power Filter <b>2005,</b>		2
29	A Novel Three-Phase Active Power Filter Control Algorithm with Unbalanced and Distorted Supply Voltages <b>2005,</b>		2
28	Effective Current Based Inverter Loss Computation and its Application for Energy Savings in a Microgrid Environment <b>2020,</b>		1
27	Special Protection Scheme at BTPS Power Station. <i>Journal of the Institution of Engineers (India): Series B, 2016, 97, 97-107</i>	0.9	1
26	Battery/supercapacitor based grid integrated microgrid with improved power quality features <b>2015</b>		1
25	DSTATCOM with LCL filter using synchronous reference frame current controller <b>2013,</b>		1
24	Inertia emulation using HESS in a microgrid environment by droop control <b>2017,</b>		1
23	Wavelet transform based algorithms for load compensation using DSTATCOM <b>2017,</b>		1
22	Design and small signal analysis of DC microgrid with hybrid energy storage system <b>2017,</b>		1
21	Control algorithm for a PV powered BLDC drive for air conditioner application <b>2015,</b>		1
20	Design and control process of SEPIC converter for maximum power extraction in wind energy conversion systems <b>2015,</b>		1
19	Control and operation of unified power quality Conditioner with battery-ultracapacitor energy storage system <b>2014,</b>		1
18	Synchronization of variable speed PMSG based wind energy conversion system to the grid with power quality improvement features <b>2012,</b>		1

17	A new control strategy for load compensation in power distribution system <b>2009</b> ,		1
16	Comparison of Control Strategies for DSTATCOM in Power Distribution System. <i>International Journal of Emerging Electric Power Systems</i> , <b>2011</b> , 12,	1.4	1
15	Minimisation of VA loading of UPQC in three-phase four-wire distribution system. <i>International Journal of Power Electronics</i> , <b>2012</b> , 4, 197	0.2	1
14	Switching Minimization of Three-Phase Four-Leg Dynamic Voltage Restorer <b>2009</b> ,		1
13	Adaptive Band Controller for Dynamic Voltage Restorer <b>2009</b> ,		1
12	Unbalanced voltage sag correction with dynamic voltage restorer using particle swarm optimization <b>2008</b> ,		1
11	PSO-based feedback controller design of DSTATCOM for load compensation with non-stiff sources. <i>International Journal of Power Electronics</i> , <b>2008</b> , 1, 191	0.2	1
10	Single-Phase Fast Response Power Factor Transducer <b>2006</b> ,		1
9	Control Strategy for a PV-Wind based Standalone DC Microgrid with Hybrid Energy Storage System <b>2019</b> ,		1
8	Cost Savings Oriented Microgrid Control Strategy Considering Battery Degradation <b>2018</b> ,		1
7	Optimized Design of Earthing System for Substations with High Soil Resistivity and Limited Plot Area <b>2018</b> ,		1
6	Analysis and design of gradient descent based pre-synchronization control for synchronverter. <i>IET Renewable Power Generation</i> , <b>2021</b> , 15, 297-312	2.9	1
5	LCL Filter with Active Damping using PI and SSI Regulators in Synchronous Rotating Reference Frame Current Controller for DSTATCOM. <i>International Journal of Emerging Electric Power Systems</i> , <b>2013</b> , 14, 309-326	1.4	0
4	A multi-objective control scheme of a voltage source converter with battery/supercapacitor energy storage system used for power quality improvement. <i>International Journal of Electrical Power and Energy Systems</i> , <b>2022</b> , 142, 108253	5.1	0
3	Corrective Measures for the Effective Load Management and Control Under Disturbance at Bhusawal Thermal Power Station: Case Study. <i>Journal of the Institution of Engineers (India): Series B</i> , <b>2014</b> , 95, 163-173	0.9	
2	Compensation of Voltage Sags with Phase-Jumps through DVR with Minimum VA Rating Using PSO based ANFIS Controller. <i>International Journal of Swarm Intelligence Research</i> , <b>2010</b> , 1, 19-33	1.1	
1	Compensation of Voltage Sags with Phase-Jumps through DVR with Minimum VA Rating Using PSO based ANFIS Controller 133-147		