Deepak Maganlal Fulwani

List of Publications by Year
in descending order

107 papers	13,055 citations	159358 30 h-index	118652 62 g-index
108 all docs	108 docs citations	108 times ranked	6584 citing authors

#	Article	IF	Citations
1	A Generalized Harmonic Compensation Control Strategy for Mitigating Subsynchronous Oscillation in Synchronverter Based Wind Farm Connected to Series Compensated Transmission Line. IEEE Transactions on Power Systems, 2023, 38, 2610-2620.	4.6	2
2	Robust Frequency Control in Interconnected Microgrids: An H$_2$/H$_{infty }$ Control Approach. IEEE Systems Journal, 2022, 16, 2044-2055.	2.9	13
3	Dynamic Virtual Impedance-Based Second-Order Ripple Regulation in DC Microgrids. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 1075-1083.	3.7	8
4	Cyber-Resilient Cooperative Control of DC Microgrid Clusters. IEEE Systems Journal, 2022, 16, 1996-2007.	2.9	13
5	A Review of DC Shipboard Microgridsâ€”Part II: Control Architectures, Stability Analysis, and Protection Schemes. IEEE Transactions on Power Electronics, 2022, 37, 4105-4120.	5.4	54
6	Modelâ€based eventâ€triggered control of singularly perturbed system with dual eventâ€triggering mechanism. International Journal of Robust and Nonlinear Control, 2022, 32, 4055-4071.	2.1	6
7	An adaptive backstepping control to ensure the stability and robustness for boost power converter in DC microgrids. Energy Reports, 2022, 8, 1110-1124.	2.5	13
8	Adaptive Voltage Tuning Based Load Sharing in DC Microgrid. IEEE Transactions on Industry Applications, 2021, 57, 977-986.	3.3	10
9	Energy management of controllable loads in multi-area power systems with wind power penetration based on new supervisor fuzzy nonlinear sliding mode control. Energy, 2021, 221, 119867.	4.5	52
10	Voltage regulation of buck converter with constant power load: An adaptive power shaping control. Control Engineering Practice, 2021, 115, 104891.	3.2	15
11	Control of Single Stage Inverters and Second-Order Ripple Regulation Using Sliding Mode Control. Studies in Systems, Decision and Control, 2021, , 305-324.	0.8	1
12	Regulation of Electric Vehicle Speed Oscillations Due to Uneven Drive Surfaces Using ISMDTC. IEEE Transactions on Vehicular Technology, 2021, 70, 12506-12516.	3.9	4
13	Interval Type2 Fuzzy Logic-Based Power Sharing Strategy for Hybrid Energy Storage System in Solar Powered Charging Station. IEEE Transactions on Vehicular Technology, 2021, 70, 12450-12461.	3.9	14
14	Integral Sliding Mode Control to Compensate Parametric Asymmetry and Modeling Errors in Z-Source Converter. , 2021, , .		2
15	A robust passivity based model predictive control for buck converter suppling constant power load. Energy Reports, 2021, 7, 792-813.	2.5	4
16	A novel continuous control set model predictive control to guarantee stability and robustness for buck power converter in DC microgrids. Energy Reports, 2021, 7, 1400-1415.	2.5	6
17	Event-triggered control for a linear continuous-time system under resource-constrained environment. , 2021, , .		0
18	ISMC for Boost-Derived DCâ€“DCâ€“AC Converter: Mitigation of $2omega$-Ripple and Uncertainty, and Improvement in Dynamic Performance. IEEE Transactions on Power Electronics, 2020, 35, 4353-4364.	5.4	9

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19	Equal Load Sharing in DC Microgrid Using Line Resistance Estimation. Lecture Notes in Electrical Engineering, 2020, , 87-96.	0.3	0
20	Control Strategies and Power Decoupling Topologies to Mitigate 2Ï‰-Ripple in Single-Phase Inverters: A Review and Open Challenges. IEEE Access, 2020, 8, 147533-147559.	2.6	43
21	HIL-Assessed Fast and Accurate Single-Phase Power Calculation Algorithm for Voltage Source Inverters Supplying to High Total Demand Distortion Nonlinear Loads. Electronics (Switzerland), 2020, 9, 1643.	1.8	10
22	Power Management Strategy Based on Virtual Inertia for DC Microgrids. IEEE Transactions on Power Electronics, 2020, 35, 12472-12485.	5.4	93
23	Event-triggered Sliding Mode Control for light load efficiency improvement in Power Converters. Control Engineering Practice, 2020, 100, 104429.	3.2	14
24	Power management techniques for grid-connected DC microgrids: A comparative evaluation. Applied Energy, 2020, 269, 115057.	5.1	47
25	Integral Sliding Mode Control for Uncertainty Mitigation in Switched Boost Inverters. , 2020, , .		0
26	Adaptive-SMC Based Output Impedance Shaping in DC Microgrids Affected by Inverter Loads. IEEE Transactions on Sustainable Energy, 2020, 11, 2940-2949.	5.9	28
27	Emulation of Loss Free Resistor for Single-Stage Three-Phase PFC Converter in Electric Vehicle Charging Application. IEEE Transactions on Transportation Electrification, 2020, 6, 334-345.	5.3	8
28	Reducedâ€order eventâ€triggered controller for a singularly perturbed system: An active suspension case. IET Control Theory and Applications, 2020, 14, 2703-2713.	1.2	2
29	Virtual Impedance based Second Order Ripple Control For Non-Inverting Buck-boost Converter. , 2020, , .		0
30	Adaptive Sliding Mode Based Loss-Free Resistor for Power-Factor Correction Application. IEEE Transactions on Industry Applications, 2019, 55, 4332-4343.	3.3	10
31	Periodic Event triggered Control of Singularly Perturbed systems. , 2019, , .		1
32	Second Order Ripple Reduction in Switched Boost Inverter For Standalone Nanogrid Applications. , 2019, , .		2
33	Enhanced Power Management System for Droop Control in a Grid Connected DC Microgrid. , 2019, , .		0
34	Event-trigger Control of Discrete Two-time Scale System by Leveraging its Intrinsic Properties. , 2019, , .		0
35	A Power Calculation Algorithm for Single-Phase Droop-Operated-Inverters Considering Linear and Nonlinear Loads HIL-Assessed. Electronics (Switzerland), 2019, 8, 1366.	1.8	10
36	Design of Space Microgrid for Manned Lunar Base: Spinning-in Terrestrial Technologies. , 2019, , .		8

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37	Adaptive Voltage Tuning Based Load Sharing in DC Microgrid. , 2019, , .		2
38	Stability Analysis Considering Dual Physical Constraints of Parallel-connected Virtual Synchronous Generators forming Microgrids. , 2019, , .		2
39	Synchronization and Current Sharing for Nonlinear-oscillator-based Inverters in Islanded Three-phase Microgrid. , 2019, , .		9
40	Adaptive SMC for the Second-Order Harmonic Ripple Mitigation: A Solution for the Micro-Inverter Applications. IEEE Transactions on Power Electronics, 2019, 34, 8254-8264.	5.4	16
41	Compromised Controller Design for Current Sharing and Voltage Regulation in DC Microgrid. IEEE Transactions on Power Electronics, 2019, 34, 8045-8061.	5.4	52
42	Three-Phase Single-Stage-Isolated Cuk-Based PFC Converter. IEEE Transactions on Power Electronics, 2019, 34, 1798-1808.	5.4	30
43	Adaptive synchronization of grid-connected three-phase inverters by using virtual oscillator control. , 2018, , .		5
44	Identification of Optimal Set of Driver Nodes in Complex Networked Systems Using Region of Attraction. International Journal of Control, Automation and Systems, 2018, 16, 97-107.	1.6	5
45	On Some Inputâ€“Output Dynamic Properties of Complex Networks. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 216-220.	2.2	2
46	Event-Triggered Composite Control of a Two Time Scale System. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 471-475.	2.2	35
47	Ripple Mitigation With Improved Line-Load Transients Response in a Two-Stage DCâ€“DCâ€“AC Converter: Adaptive SMC Approach. IEEE Transactions on Industrial Electronics, 2018, 65, 3125-3135.	5.2	44
48	Adaptive Sliding mode based Loss Free resistor for Power Factor Correction Application. , 2018, , .		1
49	A Synchronous-Reference-Frame I-V Droop Control Method for Parallel-Connected Inverters. , 2018, , .		2
50	An Alternative Realization of Droop Control and Virtual Impedance for Paralleled Converters in DC Microgrid. , 2018, , .		3
51	Second-order Harmonic Ripple Mitigation: A Solution for the Micro-Inverter Applications. , 2018, , .		0
52	Discontinuous conduction mode three phase buck-boost derived PFC converter for more electric aircraft with reduced switching, sensing and control requirements. , 2018, , .		9
53	A Novel Coordinated Control of Renewable Energy Sources and Energy Storage System in Islanded Microgrid. , 2018, , .		3
54	Constant power loads and their effects in DC distributed power systems: A review. Renewable and Sustainable Energy Reviews, 2017, 72, 407-421.	8.2	163

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55	Reactive Power Strategy of Cascaded Delta-Connected STATCOM Under Asymmetrical Voltage Conditions. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 784-795.	3.7	37
56	Event triggered control of two time scale system. , 2017, , .		4
57	Selection of optimal set of driver nodes based on networked sensitivity in complex networked systems. , 2017, , .		0
58	Emulating DC constant power load: a robust sliding mode control approach. International Journal of Electronics, 2017, 104, 1447-1464.	0.9	6
59	Event triggered control of singularly perturbec linear system based on its slow and fast model. , 2017, , .		0
60	Review on Control of DC Microgrids. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, , 1-1.	3.7	289
61	Second Ripple Current Suppression by Two Bandpass Filters and Current Sharing Method for Energy Storage Converters in DC Microgrid. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 1031-1044.	3.7	26
62	Mitigation of destabilising effect of CPLs in island DC microâ€grid using nonâ€linear control. IET Power Electronics, 2017, 10, 387-397.	1.5	32
63	Grid voltage modulated control of grid-connected voltage source inverters under unbalanced grid conditions. , 2017, , .		3
64	Constant power load instability mitigation in DC shipboard power systems using negative series virtual inductor method. , 2017, , .		11
65	A comprehensive study and analysis of second order harmonic ripple in DC microgrid feeding single phase PWM inverter loads. , 2016, , .		0
66	Second order harmonic ripple reduction in DC microgrid using sliding mode control approach. , 2016, , .		1
67	Event triggered control scheme for power converters. , 2016, , .		5
68	Selection of driver nodes based on region of attraction for single-input complex networks. , 2016, , .		1
69	Intelligent DC Homes in Future Sustainable Energy Systems: When efficiency and intelligence work together. IEEE Consumer Electronics Magazine, 2016, 5, 74-80.	2.3	166
70	Power Oscillations Damping in DC Microgrids. IEEE Transactions on Energy Conversion, 2016, 31, 970-980.	3.7	115
71	Towards characterization of driver nodes in complex network with actuator saturation. Neurocomputing, 2016, 201, 104-111.	3.5	6
72	DC Microgridsâ€”Part II: A Review of Power Architectures, Applications, and Standardization Issues. IEEE Transactions on Power Electronics, 2016, 31, 3528-3549.	5.4	974

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73	Mitigation of Negative Impedance Instabilities in a DC/DC Buck-Boost Converter with Composite Load. Journal of Power Electronics, 2016, 16, 1046-1055.	0.9	12
74	Robust slidingâ€mode control of dc/dc boost converter feeding a constant power load. IET Power Electronics, 2015, 8, 1230-1237.	1.5	168
75	Algorithms to select right driver nodes for multi-agent systems. , 2015, , .		3
76	Characterization of driver nodes: Network of discrete-time agents. , 2015, , .		2
77	Tertiary and Secondary Control Levels for Efficiency Optimization and System Damping in Droop Controlled DCâ€“DC Converters. IEEE Transactions on Smart Grid, 2015, 6, 2615-2626.	6.2	110
78	Sliding mode control of a bidirectional DC/DC converter with constant power load. , 2015, , .		31
79	DC bus voltage regulation in the presence of constant power load using sliding mode controlled dc-dc Bi-directional converter interfaced storage unit. , 2015, , .		12
80	Stability Enhancement Based on Virtual Impedance for DC Microgrids With Constant Power Loads. IEEE Transactions on Smart Grid, 2015, 6, 2770-2783.	6.2	250
81	Double-Quadrant State-of-Charge-Based Droop Control Method for Distributed Energy Storage Systems in Autonomous DC Microgrids. IEEE Transactions on Smart Grid, 2015, 6, 147-157.	6.2	282
82	A tutorial on implementation of sliding mode observer for DC/DC power converters using FPGA. , 2014, , .		6
83	Virtual impedance based stability improvement for DC microgrids with constant power loads. , 2014, , .		22
84	A PWM based sliding-mode control for negative impedance stabilization in DC Micro-girds. , 2014, , .		0
85	Constant power loads: A solution using sliding mode control. , 2014, , .		20
86	Voltage regulation and stabilization of DC/DC buck converter under constant power loading. , 2014, , .		13
87	An Improved Droop Control Method for DC Microgrids Based on Low Bandwidth Communication With DC Bus Voltage Restoration and Enhanced Current Sharing Accuracy. IEEE Transactions on Power Electronics, 2014, 29, 1800-1812.	5.4	837
88	Hierarchical Control for Multiple DC-Microgrids Clusters. IEEE Transactions on Energy Conversion, 2014, 29, 922-933.	3.7	338
89	On design of a robust controller to mitigate CPL effect — A DC micro-grid application. , 2014, , .		11
90	Modeling, stability analysis and active stabilization of multiple DC-microgrid clusters. , 2014, , .		60

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91	Distributed Adaptive Droop Control for DC Distribution Systems. IEEE Transactions on Energy Conversion, 2014, 29, 944-956.	3.7	366
92	Distributed Secondary Control for Islanded Microgridsâ€"A Novel Approach. IEEE Transactions on Power Electronics, 2014, 29, 1018-1031.	5.4	854
93	Supervisory Control of an Adaptive-Droop Regulated DC Microgrid With Battery Management Capability. IEEE Transactions on Power Electronics, 2014, 29, 695-706.	5.4	636
94	A PWM based sliding-mode control for negative impedance stabilization in DC Micro-girds. , 2014, , .		2
95	Advanced Control Architectures for Intelligent Microgridsâ€"Part I: Decentralized and Hierarchical Control. IEEE Transactions on Industrial Electronics, 2013, 60, 1254-1262.	5.2	1,562
96	Advanced Control Architectures for Intelligent Microgridsâ€"Part II: Power Quality, Energy Storage, and AC/DC Microgrids. IEEE Transactions on Industrial Electronics, 2013, 60, 1263-1270.	5.2	759
97	Design of Sliding Mode Controller with Actuator Saturation. Lecture Notes in Control and Information Sciences, 2013, , 207-219.	0.6	10
98	Design and Implementation of a Smart Wheelchair. , 2013, , .		9
99	Sliding surface design with saturated actuator. , 2012, , .		1
100	Non-linear sliding surface: towards high performance robust control. IET Control Theory and Applications, 2012, 6, 235.	1.2	45
101	Hierarchical Control of Droop-Controlled AC and DC Microgridsâ€"A General Approach Toward Standardization. IEEE Transactions on Industrial Electronics, 2011, 58, 158-172.	5.2	3,811
102	Discrete-Time Sliding Mode Control Using Output Feedback and Nonlinear Surface. Lecture Notes in Control and Information Sciences, 2011, , 381-405.	0.6	0
103	A nonlinear sliding surface for discrete-time uncertain systems. , 2010, , .		2
104	A nonlinear sliding surface to improve performance of a discrete-time input-delay system. International Journal of Control, 2010, 83, 1895-1906.	1.2	9
105	Sliding Mode Control Using Novel Sliding Surfaces. Lecture Notes in Control and Information Sciences, 2009, , .	0.6	141
106	A robust tracking controller for uncertain MIMO plant using non-linear sliding surface. , 2009, , .		14
107	High-Performance Tracking Controller for Discrete Plant Using Nonlinear Sliding Surface. IEEE Transactions on Industrial Electronics, 2009, 56, 3628-3637.	5.2	93