

# Mohammad B Shadmand

## List of Publications by Year in descending order

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82  
papers

1,387  
citations

430874

18  
h-index

580821

25  
g-index

82  
all docs

82  
docs citations

82  
times ranked

962  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rank-Based Predictive Control for Community Microgrids With Dynamic Topology and Multiple Points of Common Coupling. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2022, 3, 144-155.	3.9	9
2	Single-Phase Grid-Interactive Inverter With Resonance Suppression Based on Adaptive Predictive Control in Weak Grid Condition. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2022, 3, 809-820.	3.9	10
3	A Review of Cyber-Physical Security for Photovoltaic Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 4879-4901.	5.4	47
4	Artificial Intelligence based Anomaly Detection and Classification for Grid-Interactive Cascaded Multilevel Inverters. , 2022, , .		10
5	Smart Battery Cells for Maximum Utilization in Power Electronics Dominated Grids. , 2022, , .		6
6	Differential Power Processing-based Constant Power Generation towards Grid-friendly Photovoltaic System. , 2022, , .		1
7	Coordinated Power Reserve Control of PV Sources For Frequency Restoration in Power Electronics Dominated Grid. , 2022, , .		5
8	On Stability of PV Clusters With Distributed Power Reserve Capability. IEEE Transactions on Industrial Electronics, 2021, 68, 3928-3938.	7.9	19
9	Self-Healing Predictive Control of Battery System in Naval Power System With Pulsed Power Loads. IEEE Transactions on Energy Conversion, 2021, 36, 1056-1069.	5.2	22
10	Multitimescale Three-Tiered Voltage Control Framework for Dispersed Smart Inverters at the Grid Edge. IEEE Transactions on Industry Applications, 2021, 57, 824-834.	4.9	21
11	Hierarchical Model Predictive Control of Grid-Connected Cascaded Multilevel Inverter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 3137-3149.	5.4	17
12	GaN based High Frequency Power Electronic Interfaces: Challenges, Opportunities, and Research Roadmap. , 2021, , .		1
13	Cyberattack Resilient Control for Power Electronics Dominated Grid with Minimal Communication. , 2021, , .		4
14	Artificial Intelligence Inspired Model Predictive Control for Frequency Regulation in Power Electronics Dominated Grids. , 2021, , .		3
15	Virtual Inertia Emulation Inspired Predictive Control to Improve Frequency Stability in Power Electronics Dominated Grid. , 2021, , .		5
16	Cybersecurity Analytics for Virtual Power Plants. , 2021, , .		6
17	Enabling Resilient Community Microgrids with Multiple Points of Common Coupling via a Rank-Based Model Predictive Control Framework. , 2021, , .		5
18	Model Predictive Control for Black Start of Connected Communities via Autonomous Indexing. , 2021, , .		5

#	ARTICLE	IF	CITATIONS
19	Computationally-Efficient Optimal Control of Cascaded Multilevel Inverters With Power Balance for Energy Storage Systems. IEEE Transactions on Industrial Electronics, 2021, 68, 12285-12295.	7.9	16
20	An Effective Finite Control Set-Model Predictive Control Method for Grid Integrated Solar PV. IEEE Access, 2021, 9, 144481-144492.	4.2	15
21	Self-Synchronization Scheme for Network of Grid-following and Grid-forming Photovoltaic Inverters. , 2021, , .		4
22	Battery Sources Power Balancing in a Cascaded Multilevel Inverter via an Optimal Moving Horizon Predictive Control. , 2021, , .		4
23	On Droop-based Voltage and Frequency Restoration Techniques for Islanded Microgrids. , 2021, , .		7
24	Active Power Decoupling Control for Rectifiers with Variable Frequency Supply for More Electric Aircraft. , 2021, , .		1
25	Event-triggered Self-learning Control Scheme For Power Electronics Dominated Grid. , 2021, , .		5
26	Enforcing Coherency in the Cluster of Grid-forming Inverters in Power Electronics-Dominated Grid. , 2021, , .		1
27	A Self-learning Scheme to Detect and Mitigate the Impact of Model Parameters Imperfection in Predictive Controlled Grid-tied Inverter. , 2021, , .		1
28	Resilient Model based Predictive Control Scheme Inspired by Artificial Intelligence Methods for Grid-Interactive Inverters. , 2021, , .		5
29	Real-Time Stability Boundary Identification of Prosumers PCC in a Virtual Power Plant. , 2021, , .		1
30	Homogeneity Realization for Cluster of Heterogeneous Grid-forming Inverters. , 2021, , .		5
31	Maximizing Harvested Energy through Regenerative Braking Process in Dual-Motor All-Wheel Drive Electric Vehicles. , 2020, , .		8
32	Current Observer Based Predictive Decoupled Power Control Grid-Interactive Inverter. , 2020, , .		8
33	A Power Ripple Compensator for DC Nanogrids via a Solid-State Converter. IEEE Open Journal of the Industrial Electronics Society, 2020, 1, 311-325.	6.8	4
34	On Stability of Hybrid Power Ramp Rate Control for High Photovoltaic Penetrated Grid. , 2020, , .		5
35	Cooperative Model Predictive Control Scheme for Dispersed Smart Inverters at the Grid Edge. , 2020, , .		5
36	Autonomous Model Predictive Controlled Smart Inverter With Proactive Grid Fault Ride-Through Capability. IEEE Transactions on Energy Conversion, 2020, 35, 1825-1836.	5.2	21

#	ARTICLE	IF	CITATIONS
37	A Stabilizer based Predictive Control Scheme for Smart Inverters in Weak Grid. , 2020, , .		8
38	Towards Grid of Microgrids: Seamless Transition between Grid-Connected and Islanded Modes of Operation. IEEE Open Journal of the Industrial Electronics Society, 2020, 1, 66-81.	6.8	66
39	Peer-to-Peer Operation Strategy of PV Equipped Office Buildings and Charging Stations Considering Electric Vehicle Energy Pricing. IEEE Transactions on Industry Applications, 2020, 56, 5848-5857.	4.9	59
40	On the Stability of the Power Electronics-Dominated Grid: A New Energy Paradigm. IEEE Industrial Electronics Magazine, 2020, 14, 65-78.	2.6	78
41	PLL-less Active and Reactive Power Controller for Grid-Following Inverter. , 2020, , .		18
42	Intrusion Detection for Cybersecurity of Power Electronics Dominated Grids: Inverters PQ Set-Points Manipulation. , 2020, , .		13
43	Resonance Suppression based on Predictive Control of Grid-following Inverters with LCL Filter in Weak Grid Condition. , 2020, , .		5
44	Holistic Multi-timescale Attack Resilient Control Framework for Power Electronics Dominated Grid. , 2020, , .		9
45	An Observer Based Intrusion Detection Framework for Smart Inverters at the Grid-Edge. , 2020, , .		13
46	Autotuning Technique for the Cost Function Weight Factors in Model Predictive Control for Power Electronic Interfaces. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 1408-1420.	5.4	68
47	Smart Loads for Power Quality and Battery Lifetime Improvement in Nanogrids. , 2019, , .		10
48	Hierarchical Model Predictive Control for Cascaded Multilevel Inverters. , 2019, , .		4
49	One-Step-Ahead Adaptive Control Scheme for Active Rectifiers in Wild Frequency Applications. , 2019, , .		6
50	Autonomous Power Reserve Control for Cluster of Photovoltaic Sources in Microgrids. , 2019, , .		3
51	Computationally Efficient Distributed Predictive Controller for Cascaded Multilevel Impedance Source Inverter With LVRT Capability. IEEE Access, 2019, 7, 35731-35742.	4.2	23
52	Experimental Challenges in Using a 1.2 kV GaN HEMT for High Power Density Converters. , 2019, , .		3
53	Model Predictive Self-healing Control Scheme for Dual Active Bridge Converter. , 2019, , .		8
54	Cybersecurity Analytics using Smart Inverters in Power Distribution System: Proactive Intrusion Detection and Corrective Control Framework. , 2019, , .		18

#	ARTICLE	IF	CITATIONS
55	Performance Comparison of Active Rectifier Control Schemes in More Electric Aircraft Applications. IEEE Transactions on Transportation Electrification, 2019, 5, 1470-1479.	7.8	27
56	Computationally-efficient Hierarchical Optimal Controller for Grid-tied Cascaded Multilevel Inverters. , 2019, , .		10
57	Self-healing Model Predictive Controlled Cascaded Multilevel Inverter. , 2019, , .		8
58	Auto-tuned Model Parameters in Predictive Control of Power Electronics Converters. , 2019, , .		11
59	Analysis of Smart Loads in Nanogrids. IEEE Access, 2019, 7, 548-562.	4.2	34
60	Ultrafast Rectifier for Variable-Frequency Applications. IEEE Access, 2019, 7, 9903-9911.	4.2	18
61	Decoupled active and reactive power predictive control of impedance source microinverter with LVRT capability. , 2018, , .		8
62	Decoupled Active and Reactive Power Predictive Control for PV Applications Using a Grid-Tied Quasi-Z-Source Inverter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 1769-1782.	5.4	45
63	A unity power factor active rectifier with optimum space-vector predictive DC voltage control for variable frequency supply suitable for more electric aircraft applications. , 2018, , .		12
64	Modeling, Control, and Stability of Smart Loads Toward Grid of Nanogrids for Smart Cities. , 2018, , .		10
65	Distributed Predictive Control Scheme for Grid-Tied Cascaded Multilevel Impedance Source Inverter with LVRT Capability. , 2018, , .		2
66	Multi-criteria techno-economic optimization of hybrid grid of nanogrids. , 2018, , .		0
67	Model Predictive Control of a Voltage-Source Inverter With Seamless Transition Between Islanded and Grid-Connected Operations. IEEE Transactions on Industrial Electronics, 2017, 64, 7906-7918.	7.9	169
68	Model predictive control of multi-string PV systems with battery back-up in a community dc microgrid. , 2017, , .		21
69	Constrained decoupled power predictive controller for a single-phase grid-tied inverter. IET Renewable Power Generation, 2017, 11, 659-668.	3.1	15
70	Model Predictive Control of a Capacitorless Matrix Converter-Based STATCOM. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 796-808.	5.4	51
71	Efficient maximum power point tracking using model predictive control for photovoltaic systems under dynamic weather condition. IET Renewable Power Generation, 2017, 11, 1401-1409.	3.1	67
72	Optimal sizing of photovoltaic-wind hybrid system for community living environment and smart grid interaction. , 2017, , .		4

#	ARTICLE	IF	CITATIONS
73	Direct decoupled active and reactive predictive power control of grid-tied quasi-Z-source inverter for photovoltaic applications. , 2017, , .		3
74	A harmonic constrained minimum energy controller for a single-phase grid-tied inverter using model predictive control. , 2015, , .		3
75	Maximum power point tracking of grid connected photovoltaic system employing model predictive control. , 2015, , .		24
76	Model predictive decoupled power control for single-phase grid-tied inverter. , 2015, , .		12
77	Model predictive control of grid-tied photovoltaic systems: Maximum power point tracking and decoupled power control. , 2015, , .		15
78	Model predictive control of a capacitor-less VAR compensator based on a matrix converter. , 2014, , .		7
79	Predicting Variability of High-Penetration Photovoltaic Systems in a Community Microgrid by Analyzing High-Temporal Rate Data. IEEE Transactions on Sustainable Energy, 2014, 5, 1434-1442.	8.8	22
80	An improved MPPT technique for high gain DC-DC converter using model predictive control for photovoltaic applications. , 2014, , .		40
81	Mitigating variability of high penetration photovoltaic systems in a community smart microgrid using non-flat photovoltaic modules. , 2013, , .		5
82	A finite-element analysis approach to determine the parasitic capacitances of high-frequency multiwinding transformers for photovoltaic inverters. , 2013, , .		20