

Soumya Kundu

List of Publications by Year in descending order

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Version: 2024-02-01

38
papers

620
citations

1040056

9
h-index

1199594

12
g-index

40
all docs

40
docs citations

40
times ranked

556
citing authors

#	ARTICLE	IF	CITATIONS
1	A Comparative Study of Two Widely Used Grid-Forming Droop Controls on Microgrid Small-Signal Stability. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 963-975.	5.4	139
2	Safe protocols for generating power pulses with heterogeneous populations of thermostatically controlled loads. Energy Conversion and Management, 2013, 67, 297-308.	9.2	85
3	Overvoltages due to Synchronous Tripping of Plug-in Electric-Vehicle Chargers Following Voltage Dips. IEEE Transactions on Power Delivery, 2014, 29, 1147-1156.	4.3	77
4	Singularities in soft-impacting systems. Physica D: Nonlinear Phenomena, 2012, 241, 553-565.	2.8	40
5	Distributed control of reactive power from photovoltaic inverters. , 2013, , .		30
6	Approximating Flexibility in Distributed Energy Resources: A Geometric Approach. , 2018, , .		22
7	Distributed Small-Signal Stability Conditions for Inverter-Based Unbalanced Microgrids. IEEE Transactions on Power Systems, 2020, 35, 3981-3990.	6.5	22
8	Distributed Barrier Certificates for Safe Operation of Inverter-Based Microgrids. , 2019, , .		15
9	Prioritized Threshold Allocation for Distributed Frequency Response. , 2018, , .		14
10	Vanishing singularity in hard impacting systems. Discrete and Continuous Dynamical Systems - Series B, 2011, 16, 319-332.	0.9	14
11	A sum-of-squares approach to the stability and control of interconnected systems using vector Lyapunov functions. , 2015, , .		13
12	Sustainability, Resiliency, and Grid Stability of the Coupled Electricity and Transportation Infrastructures: Case for an Integrated Analysis. Journal of Infrastructure Systems, 2015, 21, .	1.8	13
13	A multiple-comparison-systems method for distributed stability analysis of large-scale nonlinear systems. Automatica, 2017, 78, 25-33.	5.0	13
14	Safe protocol for controlling power consumption by a heterogeneous population of loads. , 2012, , .		12
15	Graph Neural Network and Koopman Models for Learning Networked Dynamics: A Comparative Study on Power Grid Transients Prediction. IEEE Access, 2022, 10, 32337-32349.	4.2	12
16	Virtual Battery Parameter Identification Using Transfer Learning Based Stacked Autoencoder. , 2018, , .		11
17	Identification and Validation of Virtual Battery Model for Heterogeneous Devices. , 2019, , .		11
18	Stability and control of power systems using vector Lyapunov functions and sum-of-squares methods. , 2015, , .		10

#	ARTICLE	IF	CITATIONS
19	Hierarchical, Grid-Aware, and Economically Optimal Coordination of Distributed Energy Resources in Realistic Distribution Systems. <i>Energies</i> , 2020, 13, 6399.	3.1	8
20	Hysteresis-based charging control of plug-in electric vehicles. , 2012, , .		7
21	Stochastic Virtual Battery Modeling of Uncertain Electrical Loads Using Variational Autoencoder. , 2020, , .		7
22	Aggregate Protection Response of Motor Loads in Commercial Buildings. , 2018, , .		6
23	Identifying Parameter Space for Robust Stability in Nonlinear Networks: A Microgrid Application. , 2019, , .		5
24	Assessment of optimal flexibility in ensemble of frequency responsive loads. , 2017, , .		4
25	Computation of linear comparison equations for stability analysis of interconnected systems. , 2015, , .		3
26	Impact of Building-Level Motor Protection on Power System Transient Behaviors. , 2018, , .		3
27	Generation of composite load protection profiles for reliable system operation. , 2018, , .		3
28	State-space modelling of hysteresis-based control schemes. , 2013, , .		2
29	Nonlinear Dynamics of Hysteresis-Based Load Controls. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014, 47, 5419-5425.	0.4	2
30	Optimal Energy Consumption Forecast for Grid Responsive Buildings: A Sensitivity Analysis. , 2018, , .		2
31	Decomposition of Nonlinear Dynamical Networks Via Comparison Systems. , 2018, , .		2
32	Detailed Modeling of Residential End-Use Motor Load and Protection for Distribution System Transient Study. , 2019, , .		2
33	A Nonlinear Regression Method for Composite Protection Modeling of Induction Motor Loads. , 2020, , .		2
34	Towards a framework for selection of supervisory control for commercial buildings: HVAC system energy efficiency. , 2017, , .		1
35	Cross-Categorical Transfer Learning based Composite Load Protection Modeling. , 2019, , .		1
36	Sparse Control Synthesis for Uncertain Responsive Loads With Stochastic Stability Guarantees. <i>IEEE Transactions on Power Systems</i> , 2022, 37, 167-178.	6.5	1

#	ARTICLE	IF	CITATIONS
37	Data-Driven Predictive Flexibility Modeling of Distributed Energy Resources. , 2020, , 311-343.		1
38	Harmonic Modeling, Data Generation, and Analysis of Power Electronics-Interfaced Residential Loads. , 2022, , .		1