

Soumya Kundu

List of Publications by Year in descending order

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Version: 2024-02-01

38
papers

620
citations

1040056

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h-index

1199594

12
g-index

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all docs

40
docs citations

40
times ranked

556
citing authors

#	ARTICLE	IF	CITATIONS
1	Sparse Control Synthesis for Uncertain Responsive Loads With Stochastic Stability Guarantees. IEEE Transactions on Power Systems, 2022, 37, 167-178.	6.5	1
2	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
3	Harmonic Modeling, Data Generation, and Analysis of Power Electronics-Interfaced Residential Loads. , 2022, , .		1
4	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
5	Stochastic Virtual Battery Modeling of Uncertain Electrical Loads Using Variational Autoencoder. , 2020, , .		7
6	Distributed Small-Signal Stability Conditions for Inverter-Based Unbalanced Microgrids. IEEE Transactions on Power Systems, 2020, 35, 3981-3990.	6.5	22
7	Hierarchical, Grid-Aware, and Economically Optimal Coordination of Distributed Energy Resources in Realistic Distribution Systems. Energies, 2020, 13, 6399.	3.1	8
8	A Nonlinear Regression Method for Composite Protection Modeling of Induction Motor Loads. , 2020, , .		2
9	Data-Driven Predictive Flexibility Modeling of Distributed Energy Resources. , 2020, , 311-343.		1
10	Detailed Modeling of Residential End-Use Motor Load and Protection for Distribution System Transient Study. , 2019, , .		2
11	Cross-Categorical Transfer Learning based Composite Load Protection Modeling. , 2019, , .		1
12	Identification and Validation of Virtual Battery Model for Heterogeneous Devices. , 2019, , .		11
13	Identifying Parameter Space for Robust Stability in Nonlinear Networks: A Microgrid Application. , 2019, , .		5
14	Distributed Barrier Certificates for Safe Operation of Inverter-Based Microgrids. , 2019, , .		15
15	Virtual Battery Parameter Identification Using Transfer Learning Based Stacked Autoencoder. , 2018, , .		11
16	Impact of Building-Level Motor Protection on Power System Transient Behaviors. , 2018, , .		3
17	Optimal Energy Consumption Forecast for Grid Responsive Buildings: A Sensitivity Analysis. , 2018, , .		2
18	Prioritized Threshold Allocation for Distributed Frequency Response. , 2018, , .		14

#	ARTICLE	IF	CITATIONS
19	Approximating Flexibility in Distributed Energy Resources: A Geometric Approach. , 2018, , .		22
20	Decomposition of Nonlinear Dynamical Networks Via Comparison Systems. , 2018, , .		2
21	Generation of composite load protection profiles for reliable system operation. , 2018, , .		3
22	Aggregate Protection Response of Motor Loads in Commercial Buildings. , 2018, , .		6
23	A multiple-comparison-systems method for distributed stability analysis of large-scale nonlinear systems. Automatica, 2017, 78, 25-33.	5.0	13
24	Towards a framework for selection of supervisory control for commercial buildings: HVAC system energy efficiency. , 2017, , .		1
25	Assessment of optimal flexibility in ensemble of frequency responsive loads. , 2017, , .		4
26	Stability and control of power systems using vector Lyapunov functions and sum-of-squares methods. , 2015, , .		10
27	A sum-of-squares approach to the stability and control of interconnected systems using vector Lyapunov functions. , 2015, , .		13
28	Computation of linear comparison equations for stability analysis of interconnected systems. , 2015, , .		3
29	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
30	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
31	Nonlinear Dynamics of Hysteresis-Based Load Controls. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5419-5425.	0.4	2
32	Distributed control of reactive power from photovoltaic inverters. , 2013, , .		30
33	Safe protocols for generating power pulses with heterogeneous populations of thermostatically controlled loads. Energy Conversion and Management, 2013, 67, 297-308.	9.2	85
34	State-space modelling of hysteresis-based control schemes. , 2013, , .		2
35	Hysteresis-based charging control of plug-in electric vehicles. , 2012, , .		7
36	Safe protocol for controlling power consumption by a heterogeneous population of loads. , 2012, , .		12

#	ARTICLE	IF	CITATIONS
37	Singularities in soft-impacting systems. <i>Physica D: Nonlinear Phenomena</i> , 2012, 241, 553-565.	2.8	40
38	Vanishing singularity in hard impacting systems. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2011, 16, 319-332.	0.9	14