Jianming Lian

List of Publications by Year
in descending order

87 papers	1,924 citations	430754 18 h-index	377752 34 g-index
91 all docs	91 docs citations	91 times ranked	1727 citing authors

#	Article	IF	Citations
1	Aggregated Modeling and Control of Air Conditioning Loads for Demand Response. IEEE Transactions on Power Systems, 2013, 28, 4655-4664.	4.6	389
2	Sliding-mode observers for systems with unknown inputs: A high-gain approach. Automatica, 2010, 46, 347-353.	3.0	167
3	Optimal Coordination of Building Loads and Energy Storage for Power Grid and End User Services. IEEE Transactions on Smart Grid, 2018, 9, 4335-4345.	6.2	119
4	Market-Based Coordination of Thermostatically Controlled Loadsâ€”Part I: A Mechanism Design Formulation. IEEE Transactions on Power Systems, 2016, 31, 1170-1178.	4.6	115
5	Modeling of Electric Water Heaters for Demand Response: A Baseline PDE Model. IEEE Transactions on Smart Grid, 2014, 5, 2203-2210.	6.2	89
6	Minimum-Time Consensus-Based Approach for Power System Applications. IEEE Transactions on Industrial Electronics, 2016, 63, 1318-1328.	5.2	85
7	Self-Organizing Radial Basis Function Network for Real-Time Approximation of Continuous-Time Dynamical Systems. IEEE Transactions on Neural Networks, 2008, 19, 460-474.	4.8	63
8	A Medium Voltage DC Testbed for ship power system research. , 2009, , .		51
9	Solving a system of linear equations: From centralized to distributed algorithms. Annual Reviews in Control, 2019, 47, 306-322.	4.4	49
10	Performance Evaluation for Transactive Energy Systems Using Double-Auction Market. IEEE Transactions on Power Systems, 2019, 34, 4128-4137.	4.6	46
11	Interarea Oscillation Damping Control Using High-Voltage DC Transmission: A Survey. IEEE Transactions on Power Systems, 2018, 33, 6915-6923.	4.6	44
12	Decentralized Dynamic Output Feedback Control of Nonlinear Interconnected Systems. IEEE Transactions on Automatic Control, 2010, 55, 1964-1970.	3.6	42
13	Variable Neural Direct Adaptive Robust Control of Uncertain Systems. IEEE Transactions on Automatic Control, 2008, 53, 2658-2664.	3.6	40
14	Simulation-based performance evaluation of model predictive control for building energy systems. Applied Energy, 2021, 281, 116027.	5.1	40
15	Quadratic optimal control of switched linear stochastic systems. Systems and Control Letters, 2010, 59, 736-744.	1.3	35
16	Transactive Energy Systems: The Market-Based Coordination of Distributed Energy Resources. IEEE Control Systems, 2020, 40, 26-52.	1.0	35
17	Distributed Hierarchical Control Architecture for Transient Dynamics Improvement in Power Systems. IEEE Transactions on Power Systems, 2013, 28, 3065-3074.	4.6	32
18	Market-Based Coordination of Thermostatically Controlled Loadsâ€”Part II: Unknown Parameters and Case Studies. IEEE Transactions on Power Systems, 2016, 31, 1179-1187.	4.6	28

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19	Damping of Inter-Area Oscillations via Modulation of Aggregated Loads. IEEE Transactions on Power Systems, 2020, 35, 2024-2036.	4.6	28
20	Aggregated modeling and control of air conditioning loads for demand response. , 2014, , .		21
21	Generalized aggregation and coordination of residential loads in a smart community. , 2015, , .		21
22	Hierarchical control framework for integrated coordination between distributed energy resources and demand response. Electric Power Systems Research, 2017, 150, 45-54.	2.1	19
23	Reduced-order modeling of aggregated thermostatic loads with demand response. , 2012, , .		18
24	Hierarchical decentralized control strategy for demand-side primary frequency response. , 2016, , .		18
25	Impact of Cyber Attacks on High Voltage DC Transmission Damping Control. Energies, 2018, 11, 1046.	1.6	18
26	Decentralized control of multimachine power systems. , 2009, , .		16
27	A hierarchical framework for demand-side frequency control. , 2014, , .		16
28	Distributed flexibility characterization and resource allocation for multi-zone commercial buildings in the smart grid. , 2015, , .		16
29	Variable Neural Adaptive Robust Control: A Switched System Approach. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 903-915.	7.2	16
30	Modeling and control of aggregated air conditioning loads under realistic conditions. , 2013, , .		14
31	Prioritized Threshold Allocation for Distributed Frequency Response. , 2018, , .		14
32	Reduced-order observer-based decentralised control of non-linear interconnected systems. International Journal of Control, 2009, 82, 1157-1166.	1.2	12
33	Transactive Control Design for Commercial Buildings to Provide Demand Response. IFAC-PapersOnLine, 2019, 51, 151-156.	0.5	12
34	Transmission Line Fault Location Using Deep Learning Techniques. , 2019, , .		12
35	Variable structure neural network based direct adaptive robust control of uncertain systems. , 2008, , .		11
36	On decentralised control of non-linear interconnected systems. International Journal of Control, 2009, 82, 541-554.	1.2	10

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37	Distributed Robust Adaptive Frequency Control of Power Systems With Dynamic Loads. IEEE Transactions on Automatic Control, 2020, 65, 4887-4894.	3.6	10
38	Wide-area measurement-based modal decoupling for power system oscillation damping. Electric Power Systems Research, 2020, 178, 106022.	2.1	9
39	Sliding-mode observers for uncertain systems. , 2009, , .		7
40	Impacts of time delays on distributed algorithms for economic dispatch. , 2015, , .		7
41	On social optima of non-cooperative mean field games. , 2016, , .		7
42	Privacy-Preserving Transactive Energy System. , 2020, , .		7
43	Adaptive robust control: A piecewise Lyapunov function approach. , 2009, , .		6
44	Distributed hierarchical control of multi-area power systems with improved primary frequency regulation. , 2012, , .		6
45	Model Predictive Control-Based Optimal Coordination of Distributed Energy Resources. , 2013, , .		6
46	On reverse Stackelberg game and optimal mean field control for a large population of thermostatically controlled loads. , 2016, , .		5
47	Behind-the-meter Transactive Control Approach for Home Energy Management System. , 2018, , .		5
48	Communication-efficient Distributed Solutions to a System of Linear Equations with Laplacian Sparse Structure. , 2018, , .		5
49	Decentralized control of nonlinear interconnected systems. , 2008, , .		4
50	Mitigating voltage sags due to DOL starting of three phase asynchronous motors using dynamic voltage restorer (DVR). , 2012, , .		4
51	Optimal SCR Control Using Data-Driven Models. , 2013, , .		4
52	Assessment of optimal flexibility in ensemble of frequency responsive loads. , 2017, , .		4
53	Wide-Area Demand-Side Control for Inter-Area Oscillation Mitigation in Power Systems. , 2018, , .		3
54	Oscillation Damping Control Using Multiple High Voltage DC Transmission Lines: Controllability Exploration. , 2018, , .		3

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55	Frequency-domain Flexibility Characterization of Heterogeneous End-use Loads for Grid Services. , 2020, , .		3
56	New data-driven approach to bridging power system protection gaps with deep learning. Electric Power Systems Research, 2022, 208, 107863.	2.1	3
57	Decentralized control using reduced-order unknown input observers. , 2008, , .		2
58	Control of Uncertain Systems. , 2009, , 199-219.		2
59	Variable neural adaptive robust output feedback control of uncertain systems. , 2010, , .		2
60	Controller Design for a Class of Uncertain Systems with Guaranteed Performance. SIAM Journal on Control and Optimization, 2011, 49, 1239-1261.	1.1	2
61	Distributed hierarchical control architecture for transient dynamics improvement in power systems. , 2014, , .		2
62	Robust distributed volt/var control of distribution systems. , 2017, , .		2
63	A Unified Virtual Battery Model for Responsive Assets. , 2019, , .		2
64	Electricity Markets in the United States: A Brief History, Current Operations, and Trends. Power Electronics and Power Systems, 2019, , 3-27.	0.6	2
65	Synthetic High Impedance Fault Data through Deep Convolutional Generated Adversarial Network. , 2021, , .		2
66	On anomaly detection for transactive energy systems with competitive market. International Journal of Electrical Power and Energy Systems, 2021, 128, 106662.	3.3	2
67	Variable neural adaptive robust observer for uncertain systems. , 2011, , .		1
68	On market-based coordination of Thermostatically Controlled Loads with user preference. , 2014, , .		1
69	Theoretical framework for integrating distributed energy resources into distribution systems. , 2017, , .		1
70	Ensemble-based uncertainty quantification for coordination and control of thermostatically controlled loads. Journal of Control and Decision, 2018, 5, 148-168.	0.7	1
71	Integration of Retail and Wholesale Markets: Modeling Framework and Stability Analysis. , 2018, , .		1
72	Transactive Coordination of Flexible Loads with Energy Storage through Day-ahead Scheduling. , 2019, , .		1

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73	Sparse Control Synthesis for Uncertain Responsive Loads With Stochastic Stability Guarantees. IEEE Transactions on Power Systems, 2022, 37, 167-178.	4.6	1
74	Distributed and communication-efficient solutions to linear equations with special sparse structure. Systems and Control Letters, 2022, 160, 105065.	1.3	1
75	Market-based Co-optimization of Energy and Ancillary Services with Distributed Energy Resource Flexibilities. , 2020, , .		1
76	Control of uncertain systems with guaranteed performance. , 2008, , .		0
77	Reduced-order observer based decentralized controller design: The LMI approach. , 2009, , .		0
78	Mitigation of remedial action schemes by decentralized robust governor control. , 2014, , .		0
79	Poster Abstract: A Unified Distributed Control Framework for Inverter-Based Islanded Microgrid. , 2016, , .		0
80	Market-based coordination of thermostatically controlled loads-Part I: A mechanism design formulation. , 2016, , .		0
81	Calibrating physical parameters in house models using aggregate AC power demand. , 2017, , .		0
82	Guest editorial: advances in control and decision for power and energy systems. Journal of Control and Decision, 2018, 5, 115-116.	0.7	0
83	Optimal Iterative Method for Network Utility Maximization with Intertemporal Dynamic Constraints. , 2019, , .		0
84	Data-based Aggregate Model of Refrigerators for Electric Power Grid Services. , 2019, , .		0
85	Anomaly Detection of Transactive Energy Systems with Competitive Markets. , 2020, , .		0
86	Residential Heating System Control for Future Electric Power Grid Services Using Minimal Measurements. , 2019, , .		0
87	Enhancing the Implementation of a First-order Equivalent Thermal Parameter Model to Enable Accurate and Robust Building Thermal Response Prediction. , 0, , .		0