

P R Kumar

List of Publications by Year in descending order

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54
papers

1,944
citations

471509

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580821

25
g-index

54
all docs

54
docs citations

54
times ranked

2008
citing authors

#	ARTICLE	IF	CITATIONS
1	The RBMLE method for Reinforcement Learning. , 2022, , .		1
2	A Hierarchical Low-Rank Approximation Based Network Solver for EMT Simulation. IEEE Transactions on Power Delivery, 2021, 36, 280-288.	4.3	4
3	Incentive Compatibility in Stochastic Dynamic Systems. IEEE Transactions on Automatic Control, 2021, 66, 651-666.	5.7	6
4	Adaptive CSMA for Decentralized Scheduling of Multi-Hop Networks With End-to-End Deadline Constraints. IEEE/ACM Transactions on Networking, 2021, 29, 1224-1237.	3.8	7
5	Cyber-Security through Dynamic Watermarking for 2-rotor Aerial Vehicle Flight Control Systems. , 2021, , .		1
6	An Efficient Network Solver for Electromagnetic Transient Simulation of Power Systems Based on Hierarchical Inverse Computation and Modification. , 2021, , .		0
7	On the Design of Security-Guaranteeing Dynamic Watermarks. , 2020, 4, 307-312.		14
8	The Trade-Off Between Privacy and Fidelity via Ehrhart Theory. IEEE Transactions on Information Theory, 2020, 66, 2549-2569.	2.4	4
9	A Synchrophasor Data-Driven Method for Forced Oscillation Localization Under Resonance Conditions. IEEE Transactions on Power Systems, 2020, 35, 3927-3939.	6.5	32
10	Optimal Control of Thermostatic Loads for Planning Aggregate Consumption: Characterization of Solution and Explicit Strategies. , 2019, 3, 877-882.		5
11	Probability-based Collision Detection and Resolution of Planned Trajectories for Unmanned Aircraft System Traffic Management. , 2019, , .		1
12	Optimal Information Updating based on Value of Information. , 2019, , .		8
13	Scenario-Based Economic Dispatch With Tunable Risk Levels in High-Renewable Power Systems. IEEE Transactions on Power Systems, 2019, 34, 5103-5114.	6.5	43
14	Throughput Optimal Decentralized Scheduling of Multihop Networks With End-to-End Deadline Constraints: Unreliable Links. IEEE Transactions on Automatic Control, 2019, 64, 127-142.	5.7	37
15	Scenario-Based Economic Dispatch With Uncertain Demand Response. IEEE Transactions on Smart Grid, 2019, 10, 1858-1868.	9.0	65
16	TrackMAC: An IEEE 802.11ad-compatible beam tracking-based MAC protocol for 5G millimeter-wave local area networks. , 2018, , .		10
17	Decentralized Control via Dynamic Stochastic Prices: The Independent System Operator Problem. IEEE Transactions on Automatic Control, 2018, 63, 3206-3220.	5.7	13
18	VLSI architecture for exciter, governor, and stabilizer in fast power system EMT simulation. , 2018, , .		1

#	ARTICLE	IF	CITATIONS
19	The Strategic LQG System: A Dynamic Stochastic VCG Framework for Optimal Coordination. , 2018, , .		3
20	An Online Detection Framework for Cyber Attacks on Automatic Generation Control. IEEE Transactions on Power Systems, 2018, 33, 6816-6827.	6.5	95
21	A Risk-Sensitive Approach for Packet Inter-Delivery Time Optimization in Networked Cyber-Physical Systems. IEEE/ACM Transactions on Networking, 2018, 26, 1976-1989.	3.8	17
22	Localization of forced oscillations in the power grid under resonance conditions. , 2018, , .		17
23	Architecture and Algorithms for Privacy Preserving Thermal Inertial Load Management by a Load Serving Entity. IEEE Transactions on Power Systems, 2017, 32, 3275-3286.	6.5	24
24	Dynamic Watermarking: Active Defense of Networked Cyber-Physical Systems. Proceedings of the IEEE, 2017, 105, 219-240.	21.3	164
25	Are We Connected? Optimal Determination of Source-Destination Connectivity in Random Networks. IEEE/ACM Transactions on Networking, 2017, 25, 751-764.	3.8	31
26	Outlier rejection for networked control systems based on middleware. , 2017, , .		0
27	Towards safety of transportation systems with a mixture of automated and human-driven vehicles. , 2016, , .		5
28	PMU-based reduced-order modeling of power system dynamics via selective modal analysis. , 2016, , .		5
29	A System-Theoretic Clean Slate Approach to Provably Secure Ad-Hoc Wireless Networking. IEEE Transactions on Control of Network Systems, 2016, 3, 206-217.	3.7	8
30	A clean slate design for secure wireless ad-hoc networks — Part 2: Open unsynchronized networks. , 2015, , .		0
31	Optimal energy-efficient regular delivery of packets in cyber-physical systems. , 2015, , .		6
32	A control system framework for privacy preserving demand response of thermal inertial loads. , 2015, , .		2
33	Towards provably safe mixed transportation systems with human-driven and automated vehicles. , 2015, , .		9
34	Decentralized throughput maximizing policies for deadline-constrained wireless networks. , 2015, , .		17
35	Optimal demand response for thermal inertial loads employing stochastic renewables: A privacy respecting architecture and its continuum scaling limit. , 2014, , .		2
36	An MPC-Based Approach to Provable System-Wide Safety and Liveness of Autonomous Ground Traffic. IEEE Transactions on Automatic Control, 2014, 59, 3341-3356.	5.7	133

#	ARTICLE	IF	CITATIONS
37	Dimensionality Reduction of Synchrophasor Data for Early Event Detection: Linearized Analysis. IEEE Transactions on Power Systems, 2014, 29, 2784-2794.	6.5	201
38	Fluctuation analysis of debt based policies for wireless networks with hard delay constraints. , 2014, , .		12
39	Power system event classification via dimensionality reduction of synchrophasor data. , 2014, , .		21
40	Real-Time Middleware for Networked Control Systems and Application to an Unstable System. IEEE Transactions on Control Systems Technology, 2013, 21, 1898-1906.	5.2	22
41	Optimal Computation of Symmetric Boolean Functions in Collocated Networks. IEEE Journal on Selected Areas in Communications, 2013, 31, 639-654.	14.0	18
42	Near-Optimal Quantization and Linear Network Coding for Relay Networks. IEEE Transactions on Information Theory, 2013, 59, 2777-2793.	2.4	3
43	Dimensionality reduction and early event detection using online synchrophasor data. , 2013, , .		7
44	On the optimality of de-synchronized demand response with stochastic renewables and inertial thermal loads. , 2013, , .		2
45	Pathwise performance of debt based policies for wireless networks with hard delay constraints. , 2013, , .		9
46	Prolog to the Section on Cyberâ€Physical Systems. Proceedings of the IEEE, 2012, 100, 1285-1286.	21.3	17
47	Cyberâ€Physical Systems: A Perspective at the Centennial. Proceedings of the IEEE, 2012, 100, 1287-1308.	21.3	502
48	Queueing systems with hard delay constraints: a framework for real-time communication over unreliable wireless channels. Queueing Systems, 2012, 71, 151-177.	0.9	19
49	Real-time communication over unreliable wireless links: a theory and its applications. IEEE Wireless Communications, 2012, 19, 48-59.	9.0	21
50	Optimal Function Computation in Directed and Undirected Graphs. IEEE Transactions on Information Theory, 2012, 58, 3407-3418.	2.4	41
51	Scheduling Periodic Real-Time Tasks with Heterogeneous Reward Requirements. , 2011, , .		9
52	Optimality of periodwise static priority policies in real-time communications. , 2011, , .		10
53	Utility-optimal scheduling in time-varying wireless networks with delay constraints. , 2010, , .		40
54	A Theory of QoS for Wireless. , 2009, , .		200