

Kang G Shin

List of Publications by Year in descending order

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139
papers

5,298
citations

304368

22
h-index

155451

55
g-index

139
all docs

139
docs citations

139
times ranked

2855
citing authors

#	ARTICLE	IF	CITATIONS
1	Minimum-time control of robotic manipulators with geometric path constraints. IEEE Transactions on Automatic Control, 1985, 30, 531-541.	3.6	840
2	Real-time dynamic voltage scaling for low-power embedded operating systems. , 2001, , .		726
3	Efficient Discovery of Spectrum Opportunities with MAC-Layer Sensing in Cognitive Radio Networks. IEEE Transactions on Mobile Computing, 2008, 7, 533-545.	3.9	663
4	A dynamic programming approach to trajectory planning of robotic manipulators. IEEE Transactions on Automatic Control, 1986, 31, 491-500.	3.6	293
5	Defense Against Spoofed IP Traffic Using Hop-Count Filtering. IEEE/ACM Transactions on Networking, 2007, 15, 40-53.	2.6	286
6	Processor Allocation in an N-Cube Multiprocessor Using Gray Codes. IEEE Transactions on Computers, 1987, C-36, 1396-1407.	2.4	200
7	Fast Discovery of Spectrum Opportunities in Cognitive Radio Networks. , 2008, , .		118
8	Selection of near-minimum time geometric paths for robotic manipulators. IEEE Transactions on Automatic Control, 1986, 31, 501-511.	3.6	99
9	Optimal Checkpointing of Real-Time Tasks. IEEE Transactions on Computers, 1987, C-36, 1328-1341.	2.4	94
10	A unified method for evaluating real-time computer controllers and its application. IEEE Transactions on Automatic Control, 1985, 30, 357-366.	3.6	89
11	DESA: Dependable, Efficient, Scalable Architecture for Management of Large-Scale Batteries. IEEE Transactions on Industrial Informatics, 2012, 8, 406-417.	7.2	74
12	Suboptimal control of industrial manipulators with a weighted minimum time-fuel criterion. IEEE Transactions on Automatic Control, 1985, 30, 1-10.	3.6	66
13	On Mobile Viruses Exploiting Messaging and Bluetooth Services. , 2006, , .		63
14	On Dynamic Reconfiguration of a Large-Scale Battery System. , 2009, , .		63
15	Clock Synchronization of a Large Multiprocessor System in the Presence of Malicious Faults. IEEE Transactions on Computers, 1987, C-36, 2-12.	2.4	59
16	Adaptive Deadlock-Free Routing in Multicomputers Using Only One Extra Virtual Channel. , 1993, , .		56
17	Scheduling of Battery Charge, Discharge, and Rest. , 2009, , .		56
18	Interference Analysis and Transmit Power Control in IEEE 802.11a/h Wireless LANs. IEEE/ACM Transactions on Networking, 2007, 15, 1007-1020.	2.6	55

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19	Real-time prediction of battery power requirements for electric vehicles. , 2013, , .		54
20	Steering Crowdsourced Signal Map Construction via Bayesian Compressive Sensing. , 2018, , .		47
21	Title is missing!. Wireless Networks, 2000, 6, 289-305.	2.0	46
22	Differentially private and strategy-proof spectrum auction with approximate revenue maximization. , 2015, , .		44
23	Spatio-Temporal Capsule-based Reinforcement Learning for Mobility-on-Demand Network Coordination. , 2019, , .		41
24	Robust trajectory planning for robotic manipulators under payload uncertainties. IEEE Transactions on Automatic Control, 1987, 32, 1044-1054.	3.6	36
25	Pack Sizing and Reconfiguration for Management of Large-Scale Batteries. , 2012, , .		36
26	Interference Steering to Manage Interference in IoT. IEEE Internet of Things Journal, 2019, 6, 10458-10471.	5.5	34
27	Adaptive Subcarrier Nulling: Enabling partial spectrum sharing in wireless LANs. , 2011, , .		32
28	Evaluation of Error Recovery Blocks Used for Cooperating Processes. IEEE Transactions on Software Engineering, 1984, SE-10, 692-700.	4.3	30
29	Intertask communications in an integrated multirobot system. IEEE Journal of Robotics and Automation, 1987, 3, 90-100.	2.2	29
30	Real-time battery thermal management for electric vehicles. , 2014, , .		29
31	Chorus: Collision Resolution for Efficient Wireless Broadcast. , 2010, , .		28
32	Performance measures for control computers. IEEE Transactions on Automatic Control, 1987, 32, 467-473.	3.6	27
33	Aggregating Bandwidth for Multihomed Mobile Collaborative Communities. IEEE Transactions on Mobile Computing, 2007, 6, 280-296.	3.9	26
34	Thermal-Aware Resource Management for Embedded Real-Time Systems. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2018, 37, 2857-2868.	1.9	26
35	Optimal Dynamic Control of Resources in a Distributed System. IEEE Transactions on Software Engineering, 1989, 15, 1188-1198.	4.3	25
36	A router architecture for real-time point-to-point networks. Computer Architecture News, 1996, 24, 237-246.	2.5	25

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37	Secure cooperative spectrum sensing and access against intelligent malicious behaviors. , 2014, , .		25
38	MODELZ: Monitoring, Detection, and Analysis of Energy-Greedy Anomalies in Mobile Handsets. IEEE Transactions on Mobile Computing, 2011, 10, 968-981.	3.9	24
39	Opportunistic Access of TV Spectrum Using Cognitive-Radio-Enabled Cellular Networks. IEEE Transactions on Vehicular Technology, 2011, 60, 3853-3864.	3.9	24
40	Exploiting Spectrum Heterogeneity in Dynamic Spectrum Market. IEEE Transactions on Mobile Computing, 2012, 11, 2020-2032.	3.9	24
41	Design and Management of Satellite Power Systems. , 2013, , .		24
42	A Fast and Memory-Efficient Trie Structure for Name-Based Packet Forwarding. , 2018, , .		23
43	Distributed Packet Forwarding and Caching Based on Stochastic Network Utility Maximization. IEEE/ACM Transactions on Networking, 2018, 26, 1264-1277.	2.6	22
44	MUCA: New Routing for Named Data Networking. , 2018, , .		19
45	Trade-Off Analysis of Real-Time Control Performance and Schedulability*. Real-Time Systems, 2001, 21, 199-217.	1.1	18
46	Fast restoration of real-time communication service from component failures in multi-hop networks. Computer Communication Review, 1997, 27, 77-88.	1.5	17
47	Distributed tool sharing in flexible manufacturing systems. IEEE Transactions on Automation Science and Engineering, 1998, 14, 379-389.	2.4	17
48	Controlling Preemption for Better Schedulability in Multi-Core Systems. , 2012, , .		17
49	Thermal-Aware Scheduling for Integrated CPUs-GPU Platforms. Transactions on Embedded Computing Systems, 2019, 18, 1-25.	2.1	17
50	DAC: Distributed Asynchronous Cooperation for Wireless Relay Networks. , 2010, , .		16
51	On the Granularity of Trie-Based Data Structures for Name Lookups and Updates. IEEE/ACM Transactions on Networking, 2019, 27, 777-789.	2.6	16
52	Coordinated Multi-Point Transmissions Based on Interference Alignment and Neutralization. IEEE Transactions on Wireless Communications, 2019, 18, 3347-3365.	6.1	16
53	Coverage Performance in Multistream MIMO-ZFBF Heterogeneous Networks. IEEE Transactions on Vehicular Technology, 2017, 66, 6801-6818.	3.9	15
54	A cellular wireless local area network with QoS guarantees for heterogeneous traffic. Mobile Networks and Applications, 1998, 3, 89-100.	2.2	14

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55	Robust Adaptive Metrics for Deadline Assignment in Distributed Hard Real-Time Systems. Real-Time Systems, 2002, 23, 239-271.	1.1	14
56	Asymmetry-Aware Real-Time Distributed Joint Resource Allocation in IEEE 802.22 WRANs. , 2010, , .		14
57	Closing the Gap Between Stability and Schedulability: A New Task Model for Cyber-Physical Systems. , 2018, , .		14
58	ICAS: an Extensible Framework for Estimating the Susceptibility of IC Layouts to Additive Trojans. , 2020, , .		14
59	Efficient Sensing Matters a Lot for Large-Scale Batteries. , 2011, , .		13
60	Security and Privacy in the Internet of Things. Computer, 2019, 52, 40-49.	1.2	13
61	Real-Time Discharge/Charge Rate Management for Hybrid Energy Storage in Electric Vehicles. , 2014, , .		12
62	When and how much to neutralize interference?. , 2017, , .		12
63	(Re)Configuring Bike Station Network via Crowdsourced Information Fusion and Joint Optimization. , 2018, , .		12
64	Physical-State-Aware Dynamic Slack Management for Mixed-Criticality Systems. , 2018, , .		12
65	Sidekick: AP aggregation over partially overlapping channels. , 2011, , .		11
66	Schedulability Analysis for a Mode Transition in Real-Time Multi-core Systems. , 2013, , .		10
67	Enhancing wireless performance using reflectors. , 2017, , .		10
68	Dynamic Interference Steering in Heterogeneous Cellular Networks. IEEE Access, 2018, 6, 28552-28562.	2.6	10
69	Design and Adaptation of Multi-Interference Steering. IEEE Transactions on Wireless Communications, 2019, 18, 3329-3346.	6.1	10
70	A synthetic workload for a distributed real-time system. Real-Time Systems, 1996, 11, 5-18.	1.1	9
71	Multihop Transmission Opportunity in Wireless Multihop Networks. , 2010, , .		9
72	Maximizing Transmission Opportunities in Wireless Multihop Networks. IEEE Transactions on Mobile Computing, 2013, 12, 1879-1892.	3.9	9

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73	Coverage Performance of MIMO-MRC in Heterogeneous Networks: A Stochastic Geometry Perspective. , 2016, , .		8
74	Decoding interfering signals with fewer receiving antennas. , 2016, , .		8
75	Coverage Performance of Aerial-Terrestrial HetNets. , 2019, , .		8
76	Spatio-Temporal Capsule-Based Reinforcement Learning for Mobility-on-Demand Coordination. IEEE Transactions on Knowledge and Data Engineering, 2022, 34, 1446-1461.	4.0	8
77	Context-Aware Beam Tracking for 5G mmWave V2I Communications. IEEE Transactions on Mobile Computing, 2023, 22, 3257-3269.	3.9	8
78	Effects of Computing Time Delay on Real-Time Control Systems. , 1988, , .		7
79	Adaptive packet filters. , 0, , .		7
80	Admission and Eviction Control of Cognitive Radio Users at Wi-Fi 2.0 Hotspots. IEEE Transactions on Mobile Computing, 2012, 11, 1666-1677.	3.9	7
81	Modeling and Real-Time Scheduling of Large-Scale Batteries for Maximizing Performance. , 2015, , .		7
82	Coordinated multi-point transmissions based on interference alignment and neutralization. , 2016, , .		7
83	Exploiting interactions among signals to decode interfering transmissions with fewer receiving antennas. Computer Communications, 2019, 136, 63-75.	3.1	7
84	Causes and fixes of unexpected phone shutoffs. , 2020, , .		7
85	Communication primitives for a distributed multi-robot system. , 0, , .		6
86	Automatic generation of trajectory planners for industrial robots. , 0, , .		6
87	Design of an Industrial Process Controller using Neural Networks. , 1991, , .		6
88	Throughput Behavior in Multihop Multiantenna Wireless Networks. IEEE Transactions on Mobile Computing, 2009, 8, 1480-1494.	3.9	6
89	Enhanced cognitive Radio Resource Management for LTE systems. , 2013, , .		6
90	Offline Guarantee and Online Management of Power Demand and Supply in Cyber-Physical Systems. , 2016, , .		5

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91	How Do Non-Ideal UAV Antennas Affect Air-to-Ground Communications?. , 2019, , .		5
92	DNN-SAM: Split-and-Merge DNN Execution for Real-Time Object Detection. , 2022, , .		5
93	A cost-effective multistage interconnection network with network overlapping and memory interleaving. IEEE Transactions on Computers, 1985, C-34, 1088-1101.	2.4	4
94	Coverage Analysis of Multi-Stream MIMO HetNets With MRC Receivers. IEEE Transactions on Wireless Communications, 2017, 16, 7816-7833.	6.1	4
95	Cell Association in Dense Heterogeneous Cellular Networks. IEEE Transactions on Mobile Computing, 2018, 17, 1019-1032.	3.9	4
96	Maximizing Quality of Aggregation in WSNs under Deadline and Interference Constraints. , 2018, , .		4
97	Incentivizing Platform-User Interactions for Crowdsensing. IEEE Internet of Things Journal, 2021, 8, 8314-8327.	5.5	4
98	Information Fusion for (Re)Configuring Bike Station Networks With Crowdsourcing. IEEE Transactions on Knowledge and Data Engineering, 2022, 34, 736-752.	4.0	4
99	A distributed I/O architecture for HARTS. Computer Architecture News, 1990, 18, 332-342.	2.5	3
100	Analytic evaluation of contention protocols used in distributed real-time systems. Real-Time Systems, 1995, 9, 69-107.	1.1	3
101	Software engineering of machine control systems: an approach to lifecycle economics. , 0, , .		3
102	M-Polar: Channel Allocation for Throughput Maximization in SDR Mesh Networks. , 2010, , .		3
103	Secure cooperative spectrum sensing in cognitive radio networks using interference signatures. , 2013, , .		3
104	MU-MIMO downlink scheduling based on users' correlation and fairness. , 2014, , .		3
105	An Optimization Method for Multi-Operator and Mixed-Traffic LTE Deployments in the Unlicensed Bands. , 2018, , .		3
106	Coverage Performance in MIMO-ZFBF Dense HetNets with Multiplexing and LOS/NLOS Path-Loss Attenuation. IEEE Transactions on Mobile Computing, 2020, 19, 2044-2061.	3.9	3
107	Power Guarantee for Electric Systems Using Real-Time Scheduling. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 1783-1798.	4.0	3
108	Distribution Prediction for Reconfiguring Urban Dockless E-Scooter Sharing Systems. IEEE Transactions on Knowledge and Data Engineering, 2022, 34, 5722-5740.	4.0	3

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109	Exploiting Interactions of Multiple Interferences for Their Cooperative Interference Alignment. IEEE Transactions on Wireless Communications, 2021, , 1-1.	6.1	3
110	In-Vehicle Phone Localization for Prevention of Distracted Driving. IEEE Transactions on Mobile Computing, 2023, 22, 3365-3379.	3.9	3
111	Pervasive Pose Estimation for Fall Detection. ACM Transactions on Computing for Healthcare, 2022, 3, 1-23.	3.3	3
112	Load Sharing In Hypercube Multicomputers In The Presence Of Node Failures. , 0, , .		2
113	Derivation of Hard Deadlines for Real-Time Control Systems. , 1992, , .		2
114	QoS-Sensitive Protocol Processing In Shared-Memory Multiprocessor Multimedia Servers. , 0, , .		2
115	On Selfish Configuration in Wi-Fi Tethering. IEEE Communications Letters, 2013, 17, 841-843.	2.5	2
116	Poster abstract: Routing meets caching in named data networks. , 2018, , .		2
117	Interference Recycling: Exploiting Interfering Signals to Enhance Data Transmission. , 2019, , .		2
118	Accurate Angular Inference for 802.11ad Devices Using Beam-Specific Measurements. IEEE Transactions on Mobile Computing, 2022, 21, 822-834.	3.9	2
119	Inside-Out Precoding to Manage Multiple Interferences From the Same Source. IEEE Transactions on Vehicular Technology, 2020, 69, 7583-7595.	3.9	2
120	iCoding: Countermeasure Against Interference and Eavesdropping in Wireless Communications. , 2021, , .		2
121	Socially-Equitable Interactive Graph Information Fusion-based Prediction for Urban Dockless E-Scooter Sharing. , 2022, , .		2
122	Incorporation of Payload Uncertainties into Robot Trajectory Planning. , 1986, , .		1
123	Distributed Authentication of Program Integrity Verification in Wireless Sensor Networks. , 2006, , .		1
124	Impact of RTOS parameters on end-to-end timing performance. ACM SIGBED Review, 2008, 5, 1-2.	1.8	1
125	On predictive routing of security contexts in an all-IP network. Security and Communication Networks, 2010, 3, 4-15.	1.0	1
126	Distributed association control in shared wireless networks. , 2013, , .		1

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127	EMS: Efficient Multicast Streaming Scheme for Multicasting within Wi-Fi Hotspot. , 2015, , .		1
128	Power Savings with CoMP Technology in Cellular Networks. , 2018, , .		1
129	Optimal Design and Management of a Hybrid Energy Storage System. , 2019, , .		1
130	Design of a Knowledge-Based Controller for Intelligent Control Systems. , 1990, , .		1
131	Intelligent Coordination of Multiple Systems with Neural Networks. , 1991, , .		1
132	Optimal Load Sharing In Distributed Real-time Systems. , 0, , .		0
133	DOCTOR: An Integrate Software Fault Injection environment - an Extended Abstract. , 0, , .		0
134	A NEW LOCATION CODING SCHEME FOR INTELLIGENT TRANSPORTATION SYSTEMS. Journal of Intelligent Transportation Systems, 1996, 3, 99-109.	0.1	0
135	Predictive routing of contexts in an overlay network. , 2009, , .		0
136	An Enhanced Spectrum Resource Allocation Algorithm for Femtocells. , 2013, , .		0
137	Adaptive transmission in heterogeneous networks. IET Communications, 2017, 11, 604-613.	1.5	0
138	Solving a Combinatorial Optimization Problem with Feedforward Neural Networks. , 1993, , .		0
139	Robot Trajectory Tracking with Self-Tuning Predicted Control. , 1988, , .		0