

Chenyang Lu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7999337/publications.pdf>

Version: 2024-02-01

132
papers

7,585
citations

201674

27
h-index

133252

59
g-index

134
all docs

134
docs citations

134
times ranked

4417
citing authors

#	ARTICLE	IF	CITATIONS
1	Integrated coverage and connectivity configuration in wireless sensor networks. , 2003, , .		903
2	Wireless Sensor Networks for Healthcare. Proceedings of the IEEE, 2010, 98, 1947-1960.	21.3	516
3	Feedback Control Real-Time Scheduling: Framework, Modeling, and Algorithms*. Real-Time Systems, 2002, 23, 85-126.	1.3	413
4	SPEED: a stateless protocol for real-time communication in sensor networks. , 0, , .		411
5	Real-time communication and coordination in embedded sensor networks. Proceedings of the IEEE, 2003, 91, 1002-1022.	21.3	323
6	Wireless Network Design for Control Systems: A Survey. IEEE Communications Surveys and Tutorials, 2018, 20, 978-1013.	39.4	303
7	Real-Time Wireless Sensor-Actuator Networks for Industrial Cyber-Physical Systems. Proceedings of the IEEE, 2016, 104, 1013-1024.	21.3	293
8	RAP: a real-time communication architecture for large-scale wireless sensor networks. , 0, , .		192
9	Real-Time Scheduling for WirelessHART Networks. , 2010, , .		184
10	Feedback performance control in software services. IEEE Control Systems, 2003, 23, 74-90.	0.8	162
11	Cyber-Physical Codesign of Distributed Structural Health Monitoring with Wireless Sensor Networks. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 63-72.	5.6	154
12	Feedback Control Architecture and Design Methodology for Service Delay Guarantees in Web Servers. IEEE Transactions on Parallel and Distributed Systems, 2006, 17, 1014-1027.	5.6	139
13	The case for feedback control real-time scheduling. , 0, , .		138
14	Parallel Real-Time Scheduling of DAGs. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 3242-3252.	5.6	138
15	Multi-core real-time scheduling for generalized parallel task models. Real-Time Systems, 2013, 49, 404-435.	1.3	121
16	End-to-End Communication Delay Analysis in Industrial Wireless Networks. IEEE Transactions on Computers, 2015, 64, 1361-1374.	3.4	113
17	Feedback utilization control in distributed real-time systems with end-to-end tasks. IEEE Transactions on Parallel and Distributed Systems, 2005, 16, 550-561.	5.6	111
18	A feedback control approach for guaranteeing relative delays in Web servers. , 0, , .		109

#	ARTICLE	IF	CITATIONS
19	Multi-core Real-Time Scheduling for Generalized Parallel Task Models. , 2011, , .		109
20	Use of Machine Learning to Develop and Evaluate Models Using Preoperative and Intraoperative Data to Identify Risks of Postoperative Complications. JAMA Network Open, 2021, 4, e212240.	5.9	106
21	A utilization bound for aperiodic tasks and priority driven scheduling. IEEE Transactions on Computers, 2004, 53, 334-350.	3.4	89
22	Feedback control with queueing-theoretic prediction for relative delay guarantees in web servers. , , .		76
23	DEUCON: Decentralized End-to-End Utilization Control for Distributed Real-Time Systems. IEEE Transactions on Parallel and Distributed Systems, 2007, 18, 996-1009.	5.6	66
24	Robust topology control for indoor wireless sensor networks. , 2008, , .		65
25	Outstanding Paper Award: Analysis of Global EDF for Parallel Tasks. , 2013, , .		64
26	ControlWare: a middleware architecture for feedback control of software performance. , 0, , .		62
27	Introduction to Control Theory And Its Application to Computing Systems. , 2008, , 185-215.		61
28	Using wearable technology to predict health outcomes: a literature review. Journal of the American Medical Informatics Association: JAMIA, 2018, 25, 1221-1227.	4.4	60
29	End-to-End Delay Analysis for Fixed Priority Scheduling in WirelessHART Networks. , 2011, , .		59
30	Wireless whispering-gallery-mode sensor for thermal sensing and aerial mapping. Light: Science and Applications, 2018, 7, 62.	16.6	58
31	Distributed Channel Allocation Protocols for Wireless Sensor Networks. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 2264-2274.	5.6	57
32	Performance specifications and metrics for adaptive real-time systems. , 0, , .		56
33	Feedback control scheduling in distributed real-time systems. , 0, , .		56
34	Real-Time Query Scheduling for Wireless Sensor Networks. , 2007, , .		55
35	Multi-Application Deployment in Shared Sensor Networks Based on Quality of Monitoring. , 2010, , .		55
36	VESR:an aspect-based composition tool for real-time systems. , 0, , .		54

#	ARTICLE	IF	CITATIONS
37	A real-time scheduling service for parallel tasks. , 2013, , .		47
38	A Holistic Approach to Decentralized Structural Damage Localization Using Wireless Sensor Networks. , 2008, , .		46
39	An integrated data mining approach to real-time clinical monitoring and deterioration warning. , 2012, , .		45
40	Schedulability analysis and utilization bounds for highly scalable real-time services. , 0, , .		44
41	An adaptive control framework for QoS guarantees and its application to differentiated caching. , 0, , .		44
42	Incorporating emergency alarms in reliable wireless process control. , 2015, , .		44
43	Global EDF scheduling for parallel real-time tasks. Real-Time Systems, 2015, 51, 395-439.	1.3	42
44	Near optimal rate selection for wireless control systems. Transactions on Embedded Computing Systems, 2014, 13, 1-25.	2.9	41
45	Fast Sensor Placement Algorithms for Fusion-Based Target Detection. , 2008, , .		39
46	A holistic approach to decentralized structural damage localization using wireless sensor networks. Computer Communications, 2012, 36, 29-41.	5.1	38
47	Mobicast: Just-in-Time Multicast for Sensor Networks under Spatiotemporal Constraints. Lecture Notes in Computer Science, 2003, , 442-457.	1.3	38
48	Mixed-criticality federated scheduling for parallel real-time tasks. Real-Time Systems, 2017, 53, 760-811.	1.3	36
49	Analysis of EDF scheduling for Wireless Sensor-Actuator Networks. , 2014, , .		35
50	Dynamic Conflict-free Query Scheduling for Wireless Sensor Networks. , 2006, , .		33
51	Sensor Placement Algorithms for Fusion-Based Surveillance Networks. IEEE Transactions on Parallel and Distributed Systems, 2011, 22, 1407-1414.	5.6	33
52	Maximizing Network Lifetime of WirelessHART Networks under Graph Routing. , 2016, , .		33
53	Optimal Discrete Rate Adaptation for Distributed Real-Time Systems. , 2007, , .		31
54	Dynamic Conflict-Free Transmission Scheduling for Sensor Network Queries. IEEE Transactions on Mobile Computing, 2011, 10, 734-748.	5.8	30

#	ARTICLE	IF	CITATIONS
55	ARCH: Practical Channel Hopping for Reliable Home-Area Sensor Networks. , 2011, , .		30
56	Distributed Utilization Control for Real-Time Clusters with Load Balancing. , 2006, , .		28
57	Wireless Routing and Control: A Cyber-Physical Case Study. , 2016, , .		28
58	Low-Power Wide-Area Network Over White Spaces. IEEE/ACM Transactions on Networking, 2018, 26, 1893-1906.	3.8	28
59	FC-ORB: A robust distributed real-time embedded middleware with end-to-end utilization control. Journal of Systems and Software, 2007, 80, 938-950.	4.5	27
60	Real-Time Query Scheduling for Wireless Sensor Networks. IEEE Transactions on Computers, 2013, 62, 1850-1865.	3.4	26
61	Predicting Outcomes in Patients Undergoing Pancreatectomy Using Wearable Technology and Machine Learning: Prospective Cohort Study. Journal of Medical Internet Research, 2021, 23, e23595.	4.3	26
62	A Spatiotemporal Query Service for Mobile Users in Sensor Networks. , 0, , .		25
63	Medical Data Mining for Early Deterioration Warning in General Hospital Wards. , 2011, , .		25
64	Enhanced Coordination in Sensor Networks through Flexible Service Provisioning. Lecture Notes in Computer Science, 2009, , 66-85.	1.3	25
65	Priority Assignment for Real-Time Flows in WirelessHART Networks. , 2011, , .		24
66	Near Optimal Rate Selection for Wireless Control Systems. , 2012, , .		23
67	Self-Adapting MAC Layer for Wireless Sensor Networks. , 2013, , .		23
68	Real-World Empirical Studies on Multi-Channel Reliability and Spectrum Usage for Home-Area Sensor Networks. IEEE Transactions on Network and Service Management, 2013, 10, 56-69.	4.9	23
69	A Survey on Network Security for Cyber-Physical Systems: From Threats to Resilient Design. IEEE Communications Surveys and Tutorials, 2022, 24, 1534-1573.	39.4	23
70	Benchmark problem in active structural control with wireless sensor network. Structural Control and Health Monitoring, 2016, 23, 20-34.	4.0	22
71	Exploring Edge Computing for Multitier Industrial Control. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 3506-3518.	2.7	22
72	Feedback control real-time scheduling in orb middleware. , 0, , .		21

#	ARTICLE	IF	CITATIONS
73	Reliable mobicast via face-aware routing. , 0, , .		21
74	Practical control of transmission power for Wireless Sensor Networks. , 2012, , .		21
75	Efficient Coverage Maintenance Based on Probabilistic Distributed Detection. IEEE Transactions on Mobile Computing, 2010, 9, 1346-1360.	5.8	20
76	Implementation and Evaluation of Mixed-Criticality Scheduling Approaches for Periodic Tasks. , 2012, , .		20
77	Continuous real-time prediction of surgical case duration using a modular artificial neural network. British Journal of Anaesthesia, 2022, 128, 829-837.	3.4	20
78	Middleware specialization for memory-constrained networked embedded systems. , 0, , .		19
79	A Flexible Retransmission Policy for Industrial Wireless Sensor Actuator Networks. , 2018, , .		19
80	Hierarchical control of multiple resources in distributed real-time and embedded systems. , 2006, , .		17
81	Design and Analysis of Spatiotemporal Multicast Protocols for Wireless Sensor Networks. Telecommunication Systems, 2004, 26, 129-160.	2.5	16
82	Control-Based Adaptive Middleware for Real-Time Image Transmission over Bandwidth-Constrained Networks. IEEE Transactions on Parallel and Distributed Systems, 2008, 19, 779-793.	5.6	14
83	Localized and configurable topology control in lossy wireless sensor networks. Ad Hoc Networks, 2013, 11, 1345-1358.	5.5	14
84	Efficient Holistic Control over Industrial Wireless Sensor-Actuator Networks. , 2018, , .		14
85	Hierarchical control of multiple resources in distributed real-time and embedded systems. Real-Time Systems, 2008, 39, 237-282.	1.3	13
86	Towards unified radio power management for wireless sensor networks. Wireless Communications and Mobile Computing, 2009, 9, 313-323.	1.2	13
87	An Integrated Planning and Adaptive Resource Management Architecture for Distributed Real-Time Embedded Systems. IEEE Transactions on Computers, 2009, 58, 1485-1499.	3.4	13
88	RespWatch. , 2021, , .		13
89	Real-Time Performance and Middleware for Multiprocessor and Multicore Linux Platforms. , 2009, , .		12
90	Comparing stress prediction models using smartwatch physiological signals and participant self-reports. Computer Methods and Programs in Biomedicine, 2021, 208, 106207.	4.7	12

#	ARTICLE	IF	CITATIONS
91	Implementation and Experimentation of Industrial Wireless Sensor-Actuator Network Protocols. Lecture Notes in Computer Science, 2015, , 234-241.	1.3	12
92	Damage Detection and Correlation-Based Localization Using Wireless Mote Sensors. , 0, , .		11
93	Robust control-theoretic thermal balancing for server clusters. , 2010, , .		11
94	Predicting physician burnout using clinical activity logs: Model performance and lessons learned. Journal of Biomedical Informatics, 2022, 127, 104015.	4.3	11
95	Middleware Support for Aperiodic Tasks in Distributed Real-Time Systems. , 2007, , .		10
96	Configurable Middleware for Distributed Real-Time Systems with Aperiodic and Periodic Tasks. IEEE Transactions on Parallel and Distributed Systems, 2010, 21, 393-404.	5.6	10
97	Adaptive service provisioning for enhanced energy efficiency and flexibility in wireless sensor networks. Science of Computer Programming, 2013, 78, 195-217.	1.9	10
98	Conservative Channel Reuse in Real-Time Industrial Wireless Sensor-Actuator Networks. , 2018, , .		10
99	Adaptive Data Replication in Real-Time Reliable Edge Computing for Internet of Things. , 2020, , .		10
100	Design and Performance Evaluation of Configurable Component Middleware for End-to-End Adaptation of Distributed Real-Time Embedded Systems. , 2007, , .		9
101	On Controllability and Feasibility of Utilization Control in Distributed Real-Time Systems. Real-Time Systems (ECRTS), Proceedings of the Euromicro Workshop on, 2007, , .	0.0	8
102	MCFlow: A Real-Time Multi-core Aware Middleware for Dependent Task Graphs. , 2012, , .		7
103	Submodular game for distributed application allocation in shared sensor networks. , 2012, , .		7
104	Feasibility Study of Monitoring Deterioration of Outpatients Using Multimodal Data Collected by Wearables. ACM Transactions on Computing for Healthcare, 2020, 1, 1-22.	5.0	7
105	Multi-Task Learning for Randomized Controlled Trials. , 2022, 6, 1-23.		7
106	Decentralized Utilization Control in Distributed Real-Time Systems. , 0, , .		6
107	Localized and Configurable Topology Control in Lossy Wireless Sensor Networks. , 2007, , .		6
108	Towards Controllable Distributed Real-Time Systems with Feasible Utilization Control. IEEE Transactions on Computers, 2009, 58, 1095-1110.	3.4	6

#	ARTICLE	IF	CITATIONS
109	Multi-channel reliability and spectrum usage in real homes: Empirical studies for home-area sensor networks. , 2011, , .		6
110	Prioritizing local inter-domain communication in Xen. , 2013, , .		6
111	Optimal Dynamic Transmission Scheduling for Wireless Networked Control Systems. IEEE Transactions on Control Systems Technology, 2022, 30, 2360-2376.	5.2	6
112	Link Layer Support for Unified Radio Power Management in Wireless Sensor Networks. , 2007, , .		5
113	Mortality Prediction in ICUs Using A Novel Time-Slicing Cox Regression Method. AMIA ... Annual Symposium proceedings, 2015, 2015, 1289-95.	0.2	5
114	A smart actuation architecture for wireless networked control systems. , 2018, , .		4
115	CapNet. ACM Transactions on Sensor Networks, 2019, 15, 1-34.	3.6	4
116	Virtualization-Aware Traffic Control for Soft Real-Time Network Traffic on Xen. IEEE/ACM Transactions on Networking, 2022, 30, 257-270.	3.8	4
117	Synthesizing Fault-Tolerant Schedule for Time-Triggered Network Without Hot Backup. IEEE Transactions on Industrial Electronics, 2019, 66, 1345-1355.	7.9	3
118	Cross-trial prediction of depression remission using problem-solving therapy: A machine learning approach. Journal of Affective Disorders, 2022, , .	4.1	3
119	Predicting Post-Operative Complications with Wearables. , 2022, 6, 1-27.		3
120	Enhancing the Robustness of Distributed Real-Time Middleware via End-to-End Utilization Control. , 0, , .		2
121	Real-Time Middleware for Cyber-Physical Event Processing. ACM Transactions on Cyber-Physical Systems, 2019, 3, 1-25.	2.5	2
122	Real-time middleware for cyber-physical event processing. , 2017, , .		1
123	Fast Real-Time Scheduling for Ethernet-Based Train Control Networks. , 2018, , .		1
124	Analysis and elimination of noise-induced temperature error in processor thermal control. Real-Time Systems, 2020, 56, 1-27.	1.3	1
125	Editorial: Special issue on real-time wireless sensor networks. Real-Time Systems, 2007, 37, 181-182.	1.3	0
126	Towards predictable wireless cyber-physical applications. ACM SIGBED Review, 2008, 5, 1-2.	1.8	0

#	ARTICLE	IF	CITATIONS
127	Structural damage localization with tolerance to large time synchronization errors in WSNs. , 2009, , .		0
128	Toward MAC Protocol Service over the air. , 2012, , .		0
129	Optimal and efficient adaptation in distributed real-time systems with discrete rates. Real-Time Systems, 2013, 49, 339-366.	1.3	0
130	Guest editorial: special issue on embedded and real-time computing systems and applications. Real-Time Systems, 2017, 53, 855-856.	1.3	0
131	Handling scheduling uncertainties through traffic shaping in Time-Triggered train networks. , 2017, , .		0
132	Predicting Latency Distributions of Aperiodic Time-Critical Services. , 2019, , .		0