

Renfa Li

List of Publications by Year in descending order

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141
papers

2,895
citations

159573

30
h-index

197805

49
g-index

143
all docs

143
docs citations

143
times ranked

2233
citing authors

#	ARTICLE	IF	CITATIONS
1	Opportunistic Routing Algorithm for Relay Node Selection in Wireless Sensor Networks. IEEE Transactions on Industrial Informatics, 2015, 11, 112-121.	11.3	211
2	A Survey of Intrusion Detection for In-Vehicle Networks. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 919-933.	8.0	188
3	LSTM Learning With Bayesian and Gaussian Processing for Anomaly Detection in Industrial IoT. IEEE Transactions on Industrial Informatics, 2020, 16, 5244-5253.	11.3	163
4	A novel fuzzy deep-learning approach to traffic flow prediction with uncertain spatial-temporal data features. Future Generation Computer Systems, 2018, 89, 78-88.	7.5	106
5	Efficient task scheduling for budget constrained parallel applications on heterogeneous cloud computing systems. Future Generation Computer Systems, 2017, 74, 1-11.	7.5	103
6	Sliding Window Optimized Information Entropy Analysis Method for Intrusion Detection on In-Vehicle Networks. IEEE Access, 2018, 6, 45233-45245.	4.2	92
7	Energy-Efficient Scheduling Algorithms for Real-Time Parallel Applications on Heterogeneous Distributed Embedded Systems. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 3426-3442.	5.6	63
8	Improved chaff point generation for vault scheme in bio-cryptosystems. IET Biometrics, 2013, 2, 48-55.	2.5	62
9	Heterogeneity-driven end-to-end synchronized scheduling for precedence constrained tasks and messages on networked embedded systems. Journal of Parallel and Distributed Computing, 2015, 83, 1-12.	4.1	62
10	Energy-Aware Processor Merging Algorithms for Deadline Constrained Parallel Applications in Heterogeneous Cloud Computing. IEEE Transactions on Sustainable Computing, 2017, 2, 62-75.	3.1	62
11	Adaptive Dynamic Scheduling on Multifunctional Mixed-Criticality Automotive Cyber-Physical Systems. IEEE Transactions on Vehicular Technology, 2017, 66, 6676-6692.	6.3	60
12	Minimizing Energy Consumption of Real-Time Parallel Applications Using Downward and Upward Approaches on Heterogeneous Systems. IEEE Transactions on Industrial Informatics, 2017, 13, 1068-1078.	11.3	59
13	Energy-Efficient Fault-Tolerant Scheduling of Reliable Parallel Applications on Heterogeneous Distributed Embedded Systems. IEEE Transactions on Sustainable Computing, 2018, 3, 167-181.	3.1	57
14	High performance real-time scheduling of multiple mixed-criticality functions in heterogeneous distributed embedded systems. Journal of Systems Architecture, 2016, 70, 3-14.	4.3	56
15	Resource Consumption Cost Minimization of Reliable Parallel Applications on Heterogeneous Embedded Systems. IEEE Transactions on Industrial Informatics, 2017, 13, 1629-1640.	11.3	54
16	Minimizing Redundancy to Satisfy Reliability Requirement for a Parallel Application on Heterogeneous Service-Oriented Systems. IEEE Transactions on Services Computing, 2020, 13, 871-886.	4.6	52
17	Fast Functional Safety Verification for Distributed Automotive Applications During Early Design Phase. IEEE Transactions on Industrial Electronics, 2018, 65, 4378-4391.	7.9	51
18	New Results on a Delay-Derivative-Dependent Fuzzy H [∞] Filter Design for S Fuzzy Systems. IEEE Transactions on Fuzzy Systems, 2011, 19, 770-779.	9.8	50

#	ARTICLE	IF	CITATIONS
19	Reliability Enhancement Toward Functional Safety Goal Assurance in Energy-Aware Automotive Cyber-Physical Systems. IEEE Transactions on Industrial Informatics, 2018, 14, 5447-5462.	11.3	48
20	Threat Analysis for Automotive CAN Networks: A GAN Model-Based Intrusion Detection Technique. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 4467-4477.	8.0	43
21	Energy management for multiple real-time workflows on cyber-physical cloud systems. Future Generation Computer Systems, 2020, 105, 916-931.	7.5	42
22	New stability conditions for uncertain T-S fuzzy systems with interval time-varying delay. International Journal of Control, Automation and Systems, 2012, 10, 490-497.	2.7	38
23	Towards Distributed SDN: Mobility Management and Flow Scheduling in Software Defined Urban IoT. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 1400-1418.	5.6	38
24	Recent Advances and Future Trends for Automotive Functional Safety Design Methodologies. IEEE Transactions on Industrial Informatics, 2020, 16, 5629-5642.	11.3	37
25	Reducing Energy Consumption With Cost Budget Using Available Budget Preassignment in Heterogeneous Cloud Computing Systems. IEEE Access, 2018, 6, 20572-20583.	4.2	36
26	Quantitative Fault-Tolerance for Reliable Workflows on Heterogeneous IaaS Clouds. IEEE Transactions on Cloud Computing, 2020, 8, 1223-1236.	4.4	35
27	BTMonitor. Transactions on Embedded Computing Systems, 2019, 18, 1-23.	2.9	35
28	Minimizing Schedule Length of Energy Consumption Constrained Parallel Applications on Heterogeneous Distributed Systems. , 2016, , .		34
29	Mixed real-time scheduling of multiple DAGs-based applications on heterogeneous multi-core processors. Microprocessors and Microsystems, 2016, 47, 93-103.	2.8	34
30	Scheduling trade-off of dynamic multiple parallel workflows on heterogeneous distributed computing systems. Concurrency Computation Practice and Experience, 2017, 29, e3782.	2.2	34
31	Energy-Efficient Resource Utilization for Heterogeneous Embedded Computing Systems. IEEE Transactions on Computers, 2017, 66, 1518-1531.	3.4	34
32	WCRT Analysis of CAN Messages in Gateway-Integrated In-Vehicle Networks. IEEE Transactions on Vehicular Technology, 2017, 66, 9623-9637.	6.3	32
33	Minimizing Development Cost With Reliability Goal for Automotive Functional Safety During Design Phase. IEEE Transactions on Reliability, 2018, 67, 196-211.	4.6	29
34	Hardware Cost Design Optimization for Functional Safety-Critical Parallel Applications on Heterogeneous Distributed Embedded Systems. IEEE Transactions on Industrial Informatics, 2018, 14, 2418-2431.	11.3	28
35	Minimizing energy consumption with reliability goal on heterogeneous embedded systems. Journal of Parallel and Distributed Computing, 2019, 127, 44-57.	4.1	26
36	IDH-CAN: A Hardware-Based ID Hopping CAN Mechanism With Enhanced Security for Automotive Real-Time Applications. IEEE Access, 2018, 6, 54607-54623.	4.2	25

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37	A simulated annealing based genetic local search algorithm for multi-objective multicast routing problems. <i>Annals of Operations Research</i> , 2013, 206, 527-555.	4.1	24
38	A Survey of Low-Energy Parallel Scheduling Algorithms. <i>IEEE Transactions on Sustainable Computing</i> , 2022, 7, 27-46.	3.1	24
39	Dynamic DAG Scheduling on Multiprocessor Systems: Reliability, Energy, and Makespan. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2020, 39, 3336-3347.	2.7	23
40	Distortion-Free Watermarking Approach for Relational Database Integrity Checking. <i>Mathematical Problems in Engineering</i> , 2014, 2014, 1-10.	1.1	21
41	Efficient Monocular Depth Estimation for Edge Devices in Internet of Things. <i>IEEE Transactions on Industrial Informatics</i> , 2021, 17, 2821-2832.	11.3	21
42	A survey on vision-based driver distraction analysis. <i>Journal of Systems Architecture</i> , 2021, 121, 102319.	4.3	20
43	Security Enhancement for Real-Time Parallel In-Vehicle Applications by CAN FD Message Authentication. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2021, 22, 5038-5049.	8.0	19
44	Digital Twinning Based Adaptive Development Environment for Automotive Cyber-Physical Systems. <i>IEEE Transactions on Industrial Informatics</i> , 2022, 18, 1387-1396.	11.3	17
45	Security-aware signal packing algorithm for CAN-based automotive cyber-physical systems. <i>IEEE/CAA Journal of Automatica Sinica</i> , 2015, 2, 422-430.	13.1	16
46	LiDAR Point Cloud Recognition and Visualization with Deep Learning for Overhead Contact Inspection. <i>Sensors</i> , 2020, 20, 6387.	3.8	16
47	Towards Interpretable Arrhythmia Classification With Human-Machine Collaborative Knowledge Representation. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 2098-2109.	4.2	16
48	Performance and security-enhanced fuzzy vault scheme based on ridge features for distorted fingerprints. <i>IET Biometrics</i> , 2015, 4, 29-39.	2.5	15
49	An immunity-based time series prediction approach and its application for network security situation. <i>Intelligent Service Robotics</i> , 2015, 8, 1-22.	2.6	15
50	Schedule length minimization of parallel applications with energy consumption constraints using heuristics on heterogeneous distributed systems. <i>Concurrency Computation Practice and Experience</i> , 2017, 29, e4024.	2.2	15
51	Scheduling Algorithms of Flat Semi-Dormant Multicontrollers for a Cyber-Physical System. <i>IEEE Transactions on Industrial Informatics</i> , 2017, 13, 1665-1680.	11.3	15
52	Security Enhancement for Real-Time Independent In-Vehicle CAN-FD Messages in Vehicular Networks. <i>IEEE Transactions on Vehicular Technology</i> , 2021, 70, 5244-5253.	6.3	15
53	A DVFS-Weakly Dependent Energy-Efficient Scheduling Approach for Deadline-Constrained Parallel Applications on Heterogeneous Systems. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2021, 40, 2481-2494.	2.7	15
54	Exact WCRT Analysis for Message-Processing Tasks on Gateway-Integrated In-Vehicle CAN Clusters. <i>Transactions on Embedded Computing Systems</i> , 2018, 17, 1-29.	2.9	14

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55	Intrusion Detection for In-vehicle Network by Using Single GAN in Connected Vehicles. Journal of Circuits, Systems and Computers, 2021, 30, 2150007.	1.5	14
56	A fingerprint fuzzy vault scheme using a fast chaff point generation algorithm. , 2013, , .		13
57	An active scheduling policy for automotive cyber-physical systems. Journal of Systems Architecture, 2019, 97, 208-218.	4.3	13
58	WCRT Analysis and Evaluation for Sporadic Message-Processing Tasks in Multicore Automotive Gateways. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2019, 38, 281-294.	2.7	13
59	Execution cost minimization scheduling algorithms for deadline-constrained parallel applications on heterogeneous clouds. Cluster Computing, 2021, 24, 701-715.	5.0	13
60	An Efficient Scheduling Algorithm for Energy Consumption Constrained Parallel Applications on Heterogeneous Distributed Systems. , 2017, , .		12
61	Security-Aware Obfuscated Priority Assignment for CAN FD Messages in Real-Time Parallel Automotive Applications. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 4413-4425.	2.7	12
62	Reliability and Confidentiality Co-Verification for Parallel Applications in Distributed Systems. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 1353-1368.	5.6	12
63	Toward Effective Reliability Requirement Assurance for Automotive Functional Safety. ACM Transactions on Design Automation of Electronic Systems, 2018, 23, 1-26.	2.6	11
64	Clock-Based Sender Identification and Attack Detection for Automotive CAN Network. IEEE Access, 2021, 9, 2665-2679.	4.2	11
65	Local Expansion and Optimization for Higher-Order Graph Clustering. IEEE Internet of Things Journal, 2019, 6, 8702-8713.	8.7	10
66	Efficient Learning of Healthcare Data from IoT Devices by Edge Convolution Neural Networks. Applied Sciences (Switzerland), 2020, 10, 8934.	2.5	10
67	ASDYS: Dynamic Scheduling Using Active Strategies for Multifunctional Mixed-Criticality Cyber-Physical Systems. IEEE Transactions on Industrial Informatics, 2021, 17, 5175-5184.	11.3	10
68	Worst Case Response Time Analysis for Messages in Controller Area Network with Gateway. IEICE Transactions on Information and Systems, 2013, E96.D, 1467-1477.	0.7	9
69	A low-delay AVB flow scheduling method occupying the guard band in Time-Sensitive Networking. Journal of Systems Architecture, 2022, 129, 102586.	4.3	9
70	New improvement of the Hadoop relevant data locality scheduling algorithm based on LATE. , 2011, , .		8
71	Hyper-heuristic genetic algorithm for solving frequency assignment problem in TD-SCDMA. , 2014, , .		8
72	Energy-Efficient Functional Safety Design Methodology Using ASIL Decomposition for Automotive Cyber-Physical Systems. IEEE Transactions on Reliability, 2024, , 1-23.	4.6	8

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73	A local external coupling matrix solution and dynamic processing in medical cyber-physical cloud systems. <i>Journal of Systems Architecture</i> , 2020, 102, 101678.	4.3	8
74	Unifying explicit and implicit feedback for top-N recommendation. , 2017, , .		7
75	Synchronization Stability Analysis of Medical Cyber-Physical Cloud System Considering Multi-Closed-Loops. <i>Journal of Circuits, Systems and Computers</i> , 2019, 28, 1950198.	1.5	7
76	Quantitative Modeling and Analytical Calculation of Anelasticity for a Cyber-Physical System. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , 2020, 50, 4746-4761.	9.3	7
77	Learning Depth for Scene Reconstruction Using an Encoder-Decoder Model. <i>IEEE Access</i> , 2020, 8, 89300-89317.	4.2	7
78	Price Performance-Driven Hardware Cost Optimization Under Functional Safety Requirement in Large-Scale Heterogeneous Distributed Embedded Systems. <i>IEEE Transactions on Industrial Electronics</i> , 2021, 68, 4485-4497.	7.9	7
79	The Study of Cooperative Obstacle Avoidance Method for MWSN Based on Flocking Control. <i>Scientific World Journal</i> , The, 2014, 2014, 1-12.	2.1	6
80	Energy-efficient recognition of human activity in body sensor networks via compressed classification. <i>International Journal of Distributed Sensor Networks</i> , 2016, 12, 155014771667966.	2.2	6
81	Multiple Relay Selection Based on Game Theory in Cooperative Cognitive Radio Networks. <i>Chinese Journal of Electronics</i> , 2017, 26, 624-633.	1.5	6
82	Optimal power allocation and load balancing for non-dedicated heterogeneous distributed embedded computing systems. <i>Journal of Parallel and Distributed Computing</i> , 2019, 130, 24-36.	4.1	6
83	Resource-Cost-Aware Fault-Tolerant Design Methodology for End-to-End Functional Safety Computation on Automotive Cyber-Physical Systems. <i>ACM Transactions on Cyber-Physical Systems</i> , 2019, 3, 1-27.	2.5	6
84	Object Detection Using Multiview CCA-Based Graph Spectral Learning. <i>Journal of Circuits, Systems and Computers</i> , 2020, 29, 2050022.	1.5	6
85	An Energy Trace Compression Method for Differential Power Analysis Attack. <i>IEEE Access</i> , 2020, 8, 89084-89092.	4.2	6
86	Bi-Directional Timing-Power Optimisation on Heterogeneous Multi-Core Architectures. <i>IEEE Transactions on Sustainable Computing</i> , 2021, 6, 572-585.	3.1	6
87	Power Control in Distributed Wireless Sensor Networks Based on Noncooperative Game Theory. <i>International Journal of Distributed Sensor Networks</i> , 2012, 8, 398460.	2.2	5
88	Optimization of Data Allocation on CMP Embedded System with Data Migration. <i>International Journal of Parallel Programming</i> , 2017, 45, 965-981.	1.5	5
89	Message response time analysis for automotive cyber-physical systems with uncertain delay: An M/PH/1 queue approach. <i>Performance Evaluation</i> , 2018, 125, 21-47.	1.2	5
90	Partition and Scheduling of the Mixed-Criticality Tasks Based on Probability. <i>IEEE Access</i> , 2019, 7, 87837-87848.	4.2	5

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91	Risk Assessment and Development Cost Optimization in Software Defined Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 3675-3686.	8.0	5
92	Deep neural networks with attention mechanism for monocular depth estimation on embedded devices. Future Generation Computer Systems, 2022, 131, 137-150.	7.5	5
93	Lightweight Monocular Depth Estimation on Edge Devices. IEEE Internet of Things Journal, 2022, 9, 16168-16180.	8.7	5
94	Gateway Modeling and Response Time Analysis on CAN Clusters of Automobiles. , 2015, , .		4
95	A novel approach of system design for dialect speech interaction with NAO robot. , 2017, , .		4
96	A variable-sized stripe level data layout strategy for HDD/SSD hybrid parallel file systems. Concurrency Computation Practice and Experience, 2017, 29, e4039.	2.2	4
97	JDAS: a software development framework for multidatabases. Software - Practice and Experience, 2018, 48, 366-382.	3.6	4
98	Tensor-Train Fuzzy Deep Computation Model for Citywide Traffic Flow Prediction. IEEE Access, 2019, 7, 120581-120593.	4.2	4
99	Real-Time Depth Estimation with an Optimized Encoder-Decoder Architecture on Embedded Devices. , 2019, , .		4
100	Redundancy Minimization and Cost Reduction for Workflows with Reliability Requirements in Cloud-Based Services. IEEE Transactions on Cloud Computing, 2022, 10, 633-647.	4.4	4
101	An Optimized Deep Neural Network for Overhead Contact System Recognition from LiDAR Point Clouds. Remote Sensing, 2021, 13, 4110.	4.0	4
102	On Delay-Fractional-Dependent Stability Criteria for Takagi-Sugeno Fuzzy Systems with Interval Delay. Mathematical Problems in Engineering, 2014, 2014, 1-13.	1.1	3
103	Intellectual property protection for FPGA designs using the public key cryptography. Advances in Mechanical Engineering, 2019, 11, 168781401983683.	1.6	3
104	Safety Enhancement for Real-Time Parallel Applications in Distributed Automotive Embedded Systems: A Stable Stopping Approach. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 2067-2080.	5.6	3
105	Efficient DPA side channel countermeasure with MIM capacitors-based current equalizer. Journal of Systems Architecture, 2021, 118, 102146.	4.3	3
106	A Model-Based Method for Enabling Source Mapping and Intrusion Detection on Proprietary Can Bus. IEEE Transactions on Intelligent Transportation Systems, 2023, 24, 12922-12932.	8.0	3
107	HMCKRAutoEncoder: An Interpretable Deep Learning Framework for Time Series Analysis. IEEE Transactions on Emerging Topics in Computing, 2022, 10, 99-111.	4.6	3
108	Mining multiplex power-law distributions and retweeting patterns on twitter. , 2015, , .		2

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109	Hardware Cost and Energy Consumption Optimization for Safety-Critical Applications on Heterogeneous Distributed Embedded Systems. , 2018, , .		2
110	Multi-Modal Image Fusion via Convolutional Morphological Component Analysis and Guided Filter. Journal of Circuits, Systems and Computers, 2021, 30, 2130003.	1.5	2
111	Correlation Dimension Based Stability Analysis for Cyber-Physical Systems. IEEE Transactions on Industrial Informatics, 2022, 18, 859-868.	11.3	2
112	Robust Time-Sensitive Networking with Delay Bound Analyses. , 2021, , .		2
113	A Data Parallel Strategy for Aligning Multiple Biological Sequences on Homogeneous Multiprocessor Platform. , 2011, , .		1
114	Efficient data dissemination by crowdsensing in vehicular networks. , 2014, , .		1
115	Task data Optimization allocation with Data Migration. , 2015, , .		1
116	A new memory mapping mechanism for GPGPUs™ stencil computation. Computing (Vienna/New York), 2015, 97, 795-812.	4.8	1
117	Improving matrix factorization recommendations for problems in big data. , 2017, , .		1
118	Human-Interaction-aware Adaptive Functional Safety Processing for Multi-Functional Automotive Cyber-Physical Systems. ACM Transactions on Cyber-Physical Systems, 2019, 3, 1-25.	2.5	1
119	CTFTP: A Test Case Generation Strategy for General Boolean Expressions Based on Ordered Binary Label-Driven Petri Nets. IEEE Access, 2020, 8, 174516-174529.	4.2	1
120	Carry-Out Interference Optimization in WCRT Analysis for Global Fixed-Priority Multiprocessor Scheduling. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 478-491.	2.7	1
121	Security-Aware CAN-FD Message Packing in Intelligent Automotive Cyber-Physical Systems. IEEE Internet of Things Journal, 2022, 9, 22343-22356.	8.7	1
122	Obfuscated Priority Assignment to CAN-FD Messages with Dependencies: A Swapping-based and Affix-Matching Approach. , 2021, , .		1
123	Research on GPS satellite pseudo-range single point positioning algorithm. , 2021, , .		1
124	Reliability Modeling and Assessment for a Cyber-Physical System With a Complex Boundary Behavior. IEEE Transactions on Reliability, 2023, 72, 224-239.	4.6	1
125	Log analysis for embedded real-time operating system based on state machine. , 2011, , .		0
126	A variable-latency floating-point division in association with predicted quotient and fixed remainder. , 2013, , .		0

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127	Accurate detection of moving regions via a nested model. , 2014, , .		0
128	Modeling the information propagation in an email communication network using an agent-based approach. , 2014, , .		0
129	Household load scheduling under consideration of appliance characteristics and comfort level. , 2014, , .		0
130	Effective Part Localization in Latent-SVM Training. , 2014, , .		0
131	Modelling visual attention towards embodiment cognition on a reconfigurable and programmable system. , 2015, , .		0
132	An adaptive mechanism for reducing criticality level in mixed-criticality systems. , 2015, , .		0
133	Pinyin-Senses Input Method for Semantic Document Exchange in E-Business. , 2016, , .		0
134	An ALM matrix completion algorithm for recovering weather monitoring data. , 2016, , .		0
135	The "Chain Mode and Reverse Improving" Teaching Mechanism for the "Internet of Things" Major in Hunan University. , 2018, , .		0
136	Energy-Efficient Real-Time Scheduling. , 2019, , 13-70.		0
137	Reliability-Aware Fault-Tolerant Scheduling. , 2019, , 71-145.		0
138	Improving Compression Ratios for Code-Based Test Pattern Compressions through Column-Wise Reordering Algorithms. Journal of Circuits, Systems and Computers, 2020, , 2150108.	1.5	0
139	Reconciling Earlier Snapshot Time with Local Cache for Optimal Performance under Transactional Causal Consistency. IEEE Transactions on Services Computing, 2021, , 1-1.	4.6	0
140	Cluster-Based CAN-FD Frame Packing Framework Optimization Using Two Strategies. IEEE Transactions on Vehicular Technology, 2021, 70, 4784-4795.	6.3	0
141	Optimized Monocular Depth Estimation With Reparameterization on Embedded Devices. , 2021, , .		0