

Renfa Li

List of Publications by Year in descending order

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141
papers

2,895
citations

159525

30
h-index

197736

49
g-index

143
all docs

143
docs citations

143
times ranked

2233
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy-Efficient Functional Safety Design Methodology Using ASIL Decomposition for Automotive Cyber-Physical Systems. IEEE Transactions on Reliability, 2024, , 1-23.	3.5	8
2	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.	4.7	3
3	Reliability Modeling and Assessment for a Cyber-Physical System With a Complex Boundary Behavior. IEEE Transactions on Reliability, 2023, 72, 224-239.	3.5	1
4	Redundancy Minimization and Cost Reduction for Workflows with Reliability Requirements in Cloud-Based Services. IEEE Transactions on Cloud Computing, 2022, 10, 633-647.	3.1	4
5	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.	1.9	1
6	Digital Twinning Based Adaptive Development Environment for Automotive Cyber-Physical Systems. IEEE Transactions on Industrial Informatics, 2022, 18, 1387-1396.	7.2	17
7	Correlation Dimension Based Stability Analysis for Cyber-Physical Systems. IEEE Transactions on Industrial Informatics, 2022, 18, 859-868.	7.2	2
8	A Survey of Low-Energy Parallel Scheduling Algorithms. IEEE Transactions on Sustainable Computing, 2022, 7, 27-46.	2.2	24
9	Security-Aware CAN-FD Message Packing in Intelligent Automotive Cyber-Physical Systems. IEEE Internet of Things Journal, 2022, 9, 22343-22356.	5.5	1
10	Deep neural networks with attention mechanism for monocular depth estimation on embedded devices. Future Generation Computer Systems, 2022, 131, 137-150.	4.9	5
11	Lightweight Monocular Depth Estimation on Edge Devices. IEEE Internet of Things Journal, 2022, 9, 16168-16180.	5.5	5
12	HMKRAutoEncoder: An Interpretable Deep Learning Framework for Time Series Analysis. IEEE Transactions on Emerging Topics in Computing, 2022, 10, 99-111.	3.2	3
13	A low-delay AVB flow scheduling method occupying the guard band in Time-Sensitive Networking. Journal of Systems Architecture, 2022, 129, 102586.	2.5	9
14	Towards Interpretable Arrhythmia Classification With Human-Machine Collaborative Knowledge Representation. IEEE Transactions on Biomedical Engineering, 2021, 68, 2098-2109.	2.5	16
15	Multi-Modal Image Fusion via Convolutional Morphological Component Analysis and Guided Filter. Journal of Circuits, Systems and Computers, 2021, 30, 2130003.	1.0	2
16	Intrusion Detection for In-vehicle Network by Using Single GAN in Connected Vehicles. Journal of Circuits, Systems and Computers, 2021, 30, 2150007.	1.0	14
17	Security Enhancement for Real-Time Parallel In-Vehicle Applications by CAN FD Message Authentication. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 5038-5049.	4.7	19
18	Price Performance-Driven Hardware Cost Optimization Under Functional Safety Requirement in Large-Scale Heterogeneous Distributed Embedded Systems. IEEE Transactions on Industrial Electronics, 2021, 68, 4485-4497.	5.2	7

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19	ASDYS: Dynamic Scheduling Using Active Strategies for Multifunctional Mixed-Criticality Cyber-Physical Systems. IEEE Transactions on Industrial Informatics, 2021, 17, 5175-5184.	7.2	10
20	Execution cost minimization scheduling algorithms for deadline-constrained parallel applications on heterogeneous clouds. Cluster Computing, 2021, 24, 701-715.	3.5	13
21	Bi-Directional Timing-Power Optimisation on Heterogeneous Multi-Core Architectures. IEEE Transactions on Sustainable Computing, 2021, 6, 572-585.	2.2	6
22	Efficient Monocular Depth Estimation for Edge Devices in Internet of Things. IEEE Transactions on Industrial Informatics, 2021, 17, 2821-2832.	7.2	21
23	Risk Assessment and Development Cost Optimization in Software Defined Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 3675-3686.	4.7	5
24	Reconciling Earlier Snapshot Time with Local Cache for Optimal Performance under Transactional Causal Consistency. IEEE Transactions on Services Computing, 2021, , 1-1.	3.2	0
25	Clock-Based Sender Identification and Attack Detection for Automotive CAN Network. IEEE Access, 2021, 9, 2665-2679.	2.6	11
26	Cluster-Based CAN-FD Frame Packing Framework Optimization Using Two Strategies. IEEE Transactions on Vehicular Technology, 2021, 70, 4784-4795.	3.9	0
27	Security Enhancement for Real-Time Independent In-Vehicle CAN-FD Messages in Vehicular Networks. IEEE Transactions on Vehicular Technology, 2021, 70, 5244-5253.	3.9	15
28	Reliability and Confidentiality Co-Verification for Parallel Applications in Distributed Systems. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 1353-1368.	4.0	12
29	Threat Analysis for Automotive CAN Networks: A GAN Model-Based Intrusion Detection Technique. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 4467-4477.	4.7	43
30	Efficient DPA side channel countermeasure with MIM capacitors-based current equalizer. Journal of Systems Architecture, 2021, 118, 102146.	2.5	3
31	A DVFS-Weakly Dependent Energy-Efficient Scheduling Approach for Deadline-Constrained Parallel Applications on Heterogeneous Systems. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2021, 40, 2481-2494.	1.9	15
32	An Optimized Deep Neural Network for Overhead Contact System Recognition from LiDAR Point Clouds. Remote Sensing, 2021, 13, 4110.	1.8	4
33	A survey on vision-based driver distraction analysis. Journal of Systems Architecture, 2021, 121, 102319.	2.5	20
34	Obfuscated Priority Assignment to CAN-FD Messages with Dependencies: A Swapping-based and Affix-Matching Approach. , 2021, , .		1
35	Robust Time-Sensitive Networking with Delay Bound Analyses. , 2021, , .		2
36	Research on GPS satellite pseudo-range single point positioning algorithm. , 2021, , .		1

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37	Optimized Monocular Depth Estimation With Reparameterization on Embedded Devices. , 2021, , .		0
38	Quantitative Fault-Tolerance for Reliable Workflows on Heterogeneous IaaS Clouds. IEEE Transactions on Cloud Computing, 2020, 8, 1223-1236.	3.1	35
39	Energy management for multiple real-time workflows on cyber-physical cloud systems. Future Generation Computer Systems, 2020, 105, 916-931.	4.9	42
40	Minimizing Redundancy to Satisfy Reliability Requirement for a Parallel Application on Heterogeneous Service-Oriented Systems. IEEE Transactions on Services Computing, 2020, 13, 871-886.	3.2	52
41	Quantitative Modeling and Analytical Calculation of Anelasticity for a Cyber-Physical System. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 4746-4761.	5.9	7
42	Towards Distributed SDN: Mobility Management and Flow Scheduling in Software Defined Urban IoT. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 1400-1418.	4.0	38
43	A Survey of Intrusion Detection for In-Vehicle Networks. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 919-933.	4.7	188
44	A local external coupling matrix solution and dynamic processing in medical cyber-physical cloud systems. Journal of Systems Architecture, 2020, 102, 101678.	2.5	8
45	LSTM Learning With Bayesian and Gaussian Processing for Anomaly Detection in Industrial IoT. IEEE Transactions on Industrial Informatics, 2020, 16, 5244-5253.	7.2	163
46	LiDAR Point Cloud Recognition and Visualization with Deep Learning for Overhead Contact Inspection. Sensors, 2020, 20, 6387.	2.1	16
47	Improving Compression Ratios for Code-Based Test Pattern Compressions through Column-Wise Reordering Algorithms. Journal of Circuits, Systems and Computers, 2020, , 2150108.	1.0	0
48	CTFTP: A Test Case Generation Strategy for General Boolean Expressions Based on Ordered Binary Label-Driven Petri Nets. IEEE Access, 2020, 8, 174516-174529.	2.6	1
49	Efficient Learning of Healthcare Data from IoT Devices by Edge Convolution Neural Networks. Applied Sciences (Switzerland), 2020, 10, 8934.	1.3	10
50	Dynamic DAG Scheduling on Multiprocessor Systems: Reliability, Energy, and Makespan. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 3336-3347.	1.9	23
51	Object Detection Using Multiview CCA-Based Graph Spectral Learning. Journal of Circuits, Systems and Computers, 2020, 29, 2050022.	1.0	6
52	An Energy Trace Compression Method for Differential Power Analysis Attack. IEEE Access, 2020, 8, 89084-89092.	2.6	6
53	Learning Depth for Scene Reconstruction Using an Encoder-Decoder Model. IEEE Access, 2020, 8, 89300-89317.	2.6	7
54	Recent Advances and Future Trends for Automotive Functional Safety Design Methodologies. IEEE Transactions on Industrial Informatics, 2020, 16, 5629-5642.	7.2	37

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55	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.	4.0	3
56	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.	1.9	12
57	Energy-Efficient Real-Time Scheduling. , 2019, , 13-70.		0
58	Reliability-Aware Fault-Tolerant Scheduling. , 2019, , 71-145.		0
59	Intellectual property protection for FPGA designs using the public key cryptography. Advances in Mechanical Engineering, 2019, 11, 168781401983683.	0.8	3
60	Human-Interaction-aware Adaptive Functional Safety Processing for Multi-Functional Automotive Cyber-Physical Systems. ACM Transactions on Cyber-Physical Systems, 2019, 3, 1-25.	1.9	1
61	Partition and Scheduling of the Mixed-Criticality Tasks Based on Probability. IEEE Access, 2019, 7, 87837-87848.	2.6	5
62	Tensor-Train Fuzzy Deep Computation Model for Citywide Traffic Flow Prediction. IEEE Access, 2019, 7, 120581-120593.	2.6	4
63	Minimizing energy consumption with reliability goal on heterogeneous embedded systems. Journal of Parallel and Distributed Computing, 2019, 127, 44-57.	2.7	26
64	Local Expansion and Optimization for Higher-Order Graph Clustering. IEEE Internet of Things Journal, 2019, 6, 8702-8713.	5.5	10
65	Optimal power allocation and load balancing for non-dedicated heterogeneous distributed embedded computing systems. Journal of Parallel and Distributed Computing, 2019, 130, 24-36.	2.7	6
66	Real-Time Depth Estimation with an Optimized Encoder-Decoder Architecture on Embedded Devices. , 2019, , .		4
67	An active scheduling policy for automotive cyber-physical systems. Journal of Systems Architecture, 2019, 97, 208-218.	2.5	13
68	Synchronization Stability Analysis of Medical Cyber-Physical Cloud System Considering Multi-Closed-Loops. Journal of Circuits, Systems and Computers, 2019, 28, 1950198.	1.0	7
69	Resource-Cost-Aware Fault-Tolerant Design Methodology for End-to-End Functional Safety Computation on Automotive Cyber-Physical Systems. ACM Transactions on Cyber-Physical Systems, 2019, 3, 1-27.	1.9	6
70	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.	1.9	13
71	BTMonitor. Transactions on Embedded Computing Systems, 2019, 18, 1-23.	2.1	35
72	Fast Functional Safety Verification for Distributed Automotive Applications During Early Design Phase. IEEE Transactions on Industrial Electronics, 2018, 65, 4378-4391.	5.2	51

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73	Reducing Energy Consumption With Cost Budget Using Available Budget Preassignment in Heterogeneous Cloud Computing Systems. IEEE Access, 2018, 6, 20572-20583.	2.6	36
74	JDAS: a software development framework for multidatabases. Software - Practice and Experience, 2018, 48, 366-382.	2.5	4
75	Energy-Efficient Fault-Tolerant Scheduling of Reliable Parallel Applications on Heterogeneous Distributed Embedded Systems. IEEE Transactions on Sustainable Computing, 2018, 3, 167-181.	2.2	57
76	Minimizing Development Cost With Reliability Goal for Automotive Functional Safety During Design Phase. IEEE Transactions on Reliability, 2018, 67, 196-211.	3.5	29
77	Hardware Cost Design Optimization for Functional Safety-Critical Parallel Applications on Heterogeneous Distributed Embedded Systems. IEEE Transactions on Industrial Informatics, 2018, 14, 2418-2431.	7.2	28
78	Hardware Cost and Energy Consumption Optimization for Safety-Critical Applications on Heterogeneous Distributed Embedded Systems. , 2018, , .		2
79	The "Chain Mode and Reverse Improving" Teaching Mechanism for the "Internet of Things" Major in Hunan University. , 2018, , .		0
80	IDH-CAN: A Hardware-Based ID Hopping CAN Mechanism With Enhanced Security for Automotive Real-Time Applications. IEEE Access, 2018, 6, 54607-54623.	2.6	25
81	Toward Effective Reliability Requirement Assurance for Automotive Functional Safety. ACM Transactions on Design Automation of Electronic Systems, 2018, 23, 1-26.	1.9	11
82	A novel fuzzy deep-learning approach to traffic flow prediction with uncertain spatial-temporal data features. Future Generation Computer Systems, 2018, 89, 78-88.	4.9	106
83	Message response time analysis for automotive cyber-physical systems with uncertain delay: An M/PH/1 queue approach. Performance Evaluation, 2018, 125, 21-47.	0.9	5
84	Reliability Enhancement Toward Functional Safety Goal Assurance in Energy-Aware Automotive Cyber-Physical Systems. IEEE Transactions on Industrial Informatics, 2018, 14, 5447-5462.	7.2	48
85	Sliding Window Optimized Information Entropy Analysis Method for Intrusion Detection on In-Vehicle Networks. IEEE Access, 2018, 6, 45233-45245.	2.6	92
86	Exact WCRT Analysis for Message-Processing Tasks on Gateway-Integrated In-Vehicle CAN Clusters. Transactions on Embedded Computing Systems, 2018, 17, 1-29.	2.1	14
87	Optimization of Data Allocation on CMP Embedded System with Data Migration. International Journal of Parallel Programming, 2017, 45, 965-981.	1.1	5
88	Scheduling trade-off of dynamic multiple parallel workflows on heterogeneous distributed computing systems. Concurrency Computation Practice and Experience, 2017, 29, e3782.	1.4	34
89	Schedule length minimization of parallel applications with energy consumption constraints using heuristics on heterogeneous distributed systems. Concurrency Computation Practice and Experience, 2017, 29, e4024.	1.4	15
90	Adaptive Dynamic Scheduling on Multifunctional Mixed-Criticality Automotive Cyber-Physical Systems. IEEE Transactions on Vehicular Technology, 2017, 66, 6676-6692.	3.9	60

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91	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.	7.2	59
92	Energy-Efficient Resource Utilization for Heterogeneous Embedded Computing Systems. IEEE Transactions on Computers, 2017, 66, 1518-1531.	2.4	34
93	Scheduling Algorithms of Flat Semi-Dormant Multicontrollers for a Cyber-Physical System. IEEE Transactions on Industrial Informatics, 2017, 13, 1665-1680.	7.2	15
94	Energy-Aware Processor Merging Algorithms for Deadline Constrained Parallel Applications in Heterogeneous Cloud Computing. IEEE Transactions on Sustainable Computing, 2017, 2, 62-75.	2.2	62
95	Efficient task scheduling for budget constrained parallel applications on heterogeneous cloud computing systems. Future Generation Computer Systems, 2017, 74, 1-11.	4.9	103
96	Resource Consumption Cost Minimization of Reliable Parallel Applications on Heterogeneous Embedded Systems. IEEE Transactions on Industrial Informatics, 2017, 13, 1629-1640.	7.2	54
97	A novel approach of system design for dialect speech interaction with NAO robot. , 2017, , .		4
98	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.	4.0	63
99	A variable-sized stripe level data layout strategy for HDD/SSD hybrid parallel file systems. Concurrency Computation Practice and Experience, 2017, 29, e4039.	1.4	4
100	Improving matrix factorization recommendations for problems in big data. , 2017, , .		1
101	WCRT Analysis of CAN Messages in Gateway-Integrated In-Vehicle Networks. IEEE Transactions on Vehicular Technology, 2017, 66, 9623-9637.	3.9	32
102	Unifying explicit and implicit feedback for top-N recommendation. , 2017, , .		7
103	Multiple Relay Selection Based on Game Theory in Cooperative Cognitive Radio Networks. Chinese Journal of Electronics, 2017, 26, 624-633.	0.7	6
104	An Efficient Scheduling Algorithm for Energy Consumption Constrained Parallel Applications on Heterogeneous Distributed Systems. , 2017, , .		12
105	Energy-efficient recognition of human activity in body sensor networks via compressed classification. International Journal of Distributed Sensor Networks, 2016, 12, 155014771667966.	1.3	6
106	Minimizing Schedule Length of Energy Consumption Constrained Parallel Applications on Heterogeneous Distributed Systems. , 2016, , .		34
107	Pinyin-Senses Input Method for Semantic Document Exchange in E-Business. , 2016, , .		0
108	Mixed real-time scheduling of multiple DAGs-based applications on heterogeneous multi-core processors. Microprocessors and Microsystems, 2016, 47, 93-103.	1.8	34

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109	An ALM matrix completion algorithm for recovering weather monitoring data. , 2016, , .		0
110	High performance real-time scheduling of multiple mixed-criticality functions in heterogeneous distributed embedded systems. Journal of Systems Architecture, 2016, 70, 3-14.	2.5	56
111	Modelling visual attention towards embodiment cognition on a reconfigurable and programmable system. , 2015, , .		0
112	Security-aware signal packing algorithm for CAN-based automotive cyber-physical systems. IEEE/CAA Journal of Automatica Sinica, 2015, 2, 422-430.	8.5	16
113	Mining multiplex power-law distributions and retweeting patterns on twitter. , 2015, , .		2
114	Performance and security-enhanced fuzzy vault scheme based on ridge features for distorted fingerprints. IET Biometrics, 2015, 4, 29-39.	1.6	15
115	Gateway Modeling and Response Time Analysis on CAN Clusters of Automobiles. , 2015, , .		4
116	An adaptive mechanism for reducing criticality level in mixed-criticality systems. , 2015, , .		0
117	Task data Optimization allocation with Data Migration. , 2015, , .		1
118	Opportunistic Routing Algorithm for Relay Node Selection in Wireless Sensor Networks. IEEE Transactions on Industrial Informatics, 2015, 11, 112-121.	7.2	211
119	A new memory mapping mechanism for GPGPUsâ€™ stencil computation. Computing (Vienna/New York), 2015, 97, 795-812.	3.2	1
120	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.	2.7	62
121	An immunity-based time series prediction approach and its application for network security situation. Intelligent Service Robotics, 2015, 8, 1-22.	1.6	15
122	The Study of Cooperative Obstacle Avoidance Method for MWSN Based on Flocking Control. Scientific World Journal, The, 2014, 2014, 1-12.	0.8	6
123	Accurate detection of moving regions via a nested model. , 2014, , .		0
124	Distortion-Free Watermarking Approach for Relational Database Integrity Checking. Mathematical Problems in Engineering, 2014, 2014, 1-10.	0.6	21
125	Modeling the information propagation in an email communication network using an agent-based approach. , 2014, , .		0
126	On Delay-Fractional-Dependent Stability Criteria for Takagi-Sugeno Fuzzy Systems with Interval Delay. Mathematical Problems in Engineering, 2014, 2014, 1-13.	0.6	3

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127	Household load scheduling under consideration of appliance characteristics and comfort level. , 2014, , .		0
128	Effective Part Localization in Latent-SVM Training. , 2014, , .		0
129	Hyper-heuristic genetic algorithm for solving frequency assignment problem in TD-SCDMA. , 2014, , .		8
130	Efficient data dissemination by crowdsensing in vehicular networks. , 2014, , .		1
131	A simulated annealing based genetic local search algorithm for multi-objective multicast routing problems. Annals of Operations Research, 2013, 206, 527-555.	2.6	24
132	A fingerprint fuzzy vault scheme using a fast chaff point generation algorithm. , 2013, , .		13
133	Improved chaff point generation for vault scheme in bio- cryptosystems. IET Biometrics, 2013, 2, 48-55.	1.6	62
134	A variable-latency floating-point division in association with predicted quotient and fixed remainder. , 2013, , .		0
135	Worst Case Response Time Analysis for Messages in Controller Area Network with Gateway. IEICE Transactions on Information and Systems, 2013, E96.D, 1467-1477.	0.4	9
136	Power Control in Distributed Wireless Sensor Networks Based on Noncooperative Game Theory. International Journal of Distributed Sensor Networks, 2012, 8, 398460.	1.3	5
137	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.	1.6	38
138	A Data Parallel Strategy for Aligning Multiple Biological Sequences on Homogeneous Multiprocessor Platform. , 2011, , .		1
139	New improvement of the Hadoop relevant data locality scheduling algorithm based on LATE. , 2011, , .		8
140	New Results on a Delay-Derivative-Dependent Fuzzy H ∞ Filter Design for T-S Fuzzy Systems. IEEE Transactions on Fuzzy Systems, 2011, 19, 770-779.	6.5	50
141	Log analysis for embedded real-time operating system based on state machine. , 2011, , .		0