

Iain John Bate

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

444
citations

1307594

7
h-index

1474206

9
g-index

60
all docs

60
docs citations

60
times ranked

318
citing authors

#	ARTICLE	IF	CITATIONS
1	A framework for multi-core schedulability analysis accounting for resource stress and sensitivity. Real-Time Systems, 2022, 58, 456-508.	1.3	4
2	Compensating Adaptive Mixed Criticality Scheduling. , 2022, , .		6
3	Mixed Criticality on Multi-cores Accounting for Resource Stress and Resource Sensitivity. , 2022, , .		0
4	Analysis-Runtime Co-design for Adaptive Mixed Criticality Scheduling. , 2022, , .		1
5	Timing-Accurate General-Purpose I/O for Multi- and Many-Core Systems: Scheduling and Hardware Support. , 2020, , .		7
6	Establishing Confidence and Understanding Uncertainty in Real-Time Systems. , 2020, , .		3
7	TACO. , 2018, , .		5
8	Valid Application of EVT in Timing Analysis by Randomising Execution Time Measurements. , 2017, , .		11
9	Open Challenges for Probabilistic Measurement-Based Worst-Case Execution Time. IEEE Embedded Systems Letters, 2017, 9, 69-72.	1.9	36
10	Issues of using wireless sensor network to monitor urban air quality. , 2017, , .		18
11	Using Safety Contracts to Guide the Maintenance of Systems and Safety Cases. , 2017, , .		3
12	Achieving Appropriate Test Coverage for Reliable Measurement-Based Timing Analysis. , 2016, , .		34
13	Identifying usage anomalies for ECG-based sensor nodes. , 2016, , .		2
14	Extending optimistic transmission protocol for other movement patterns. , 2015, , .		0
15	A Bailout Protocol for Mixed Criticality Systems. , 2015, , .		37
16	Deriving Hierarchical Safety Contracts. , 2015, , .		3
17	Deriving Safety Contracts to Support Architecture Design of Safety Critical Systems. , 2015, , .		4
18	An Opportunistic Transmission Protocol for Body Sensor Networks using RSSI and on-board accelerometer. , 2015, , .		5

#	ARTICLE	IF	CITATIONS
19	The Nature and Content of Safety Contracts: Challenges and Suggestions for a Way Forward. , 2014, , .		6
20	A self-adaptive fault-tolerant systems for a dependable Wireless Sensor Networks. Design Automation for Embedded Systems, 2014, 18, 223-250.	1.0	9
21	Assuring Safety for Component Based Software Engineering. , 2014, , .		6
22	Making an ALARP Decision of Sufficient Testing. , 2014, , .		5
23	Improving the Dependability of Sensornets. , 2013, , .		12
24	Using Feedback Control within WSN's to meet Application Requirements. , 2013, , .		1
25	Validation of performance data using experimental verification process in wireless sensor network. , 2012, , .		5
26	Optimized Frame Packing for Embedded Systems. IEEE Embedded Systems Letters, 2012, 4, 65-68.	1.9	23
27	A Control Theoretic Approach for Workflow Management. , 2012, , .		0
28	Developing Safe and Dependable Sensornets. , 2011, , .		4
29	Assessment of trace-differences in timing analysis for Complex Real-Time Embedded Systems. , 2011, , .		0
30	Multi-modal routing to tolerate failures. , 2011, , .		6
31	LIPS: A Protocol Suite for Homeostatic SensorNet Management. , 2011, , .		2
32	A statistical response-time analysis of complex real-time embedded systems by using timing traces. , 2011, , .		3
33	Efficient Task Allocation to FPGAs in the Safety Critical Domain. , 2011, , .		1
34	Bio-inspired Error Detection for Complex Systems. , 2011, , .		8
35	Video subset selection for measurement based Worst Case Execution Time analysis. , 2011, , .		1
36	WCET analysis of modern processors using multi-criteria optimisation. Empirical Software Engineering, 2011, 16, 5-28.	3.9	13

#	ARTICLE	IF	CITATIONS
37	Editorial for the special issue on search-based software engineering. Software - Practice and Experience, 2011, 41, 467-468.	3.6	0
38	Probabilistic Instruction Cache Analysis Using Bayesian Networks. , 2011, , .		0
39	Accurate Determination of Loop Iterations for Worst-Case Execution Time Analysis. IEEE Transactions on Computers, 2010, 59, 1520-1532.	3.4	1
40	Stressing Search with Scenarios for Flexible Solutions to Real-Time Task Allocation Problems. IEEE Transactions on Software Engineering, 2010, 36, 704-718.	5.6	21
41	Component-Based Safety Analysis of FPGAs. IEEE Transactions on Industrial Informatics, 2010, 6, 195-205.	11.3	26
42	Maintaining Stable Node Populations in Long-Lifetime Sensornets. , 2010, , .		1
43	Learning Bayesian Networks for Improved Instruction Cache Analysis. , 2010, , .		1
44	Timing Analyzing for Systems with Task Execution Dependencies. , 2010, , .		5
45	Guaranteed Loop Bound Identification from Program Traces for WCET. , 2009, , .		8
46	Anomaly detection inspired by immune network theory: A proposal. , 2009, , .		3
47	Understanding Behavioural Tradeoffs in Large-Scale Sensornet Design. , 2009, , .		1
48	Comparing design of experiments and evolutionary approaches to multi-objective optimisation of sensornet protocols. , 2009, , .		4
49	Semi-Automated Safety Analysis for Field Programmable Gate Arrays. , 2009, , .		0
50	Tuning Complex Sensornet Systems Using Principled Engineering Methods. , 2009, , .		0
51	An improved lightweight synchronisation primitive for sensornets. , 2009, , .		6
52	WCET Analysis of Modern Processors Using Multi-Criteria Optimisation. , 2009, , .		16
53	Energy Efficient Duty Allocation Protocols for Wireless Sensor Networks. , 2009, , .		4
54	Improving the reliability of real-time embedded systems using innate immune techniques. Evolutionary Intelligence, 2008, 1, 113-132.	3.6	11

#	ARTICLE	IF	CITATIONS
55	Extending a Task Allocation Algorithm for Graceful Degradation of Real-Time Distributed Embedded Systems. , 2008, , .		22
56	Utilising Application Flexibility in Energy Aware Computing. , 2008, , .		0
57	New Directions in Worst-Case Execution Time analysis. , 2008, , .		2
58	An Efficient Experimental Methodology for Configuring Search-Based Design Algorithms. , 2007, , .		7
59	Minimising Task Migration and Priority Changes in Mode Transitions. , 2007, , .		16
60	Towards New Methods for Developing Real-Time Systems: Automatically Deriving Loop Bounds Using Machine Learning. , 2006, , .		5