

# Arvind Easwaran

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

75  
papers

936  
citations

16  
h-index

27  
g-index

91  
ext. papers

1,185  
ext. citations

2.6  
avg, IF

4.7  
L-index

#	Paper	IF	Citations
75	A Game-Theoretic Approach to Secure Estimation and Control for Cyber-Physical Systems with a Digital Twin <b>2020</b> ,		2
74	A Scenario-Based Branch-and-Bound Approach for MES Scheduling in Urban Buildings. <i>IEEE Transactions on Industrial Informatics</i> , <b>2020</b> , 16, 7510-7520	11.9	6
73	Real-Time Energy Monitoring in IoT-enabled Mobile Devices <b>2020</b> ,		2
72	SlotSwapper. <i>ACM SIGBED Review</i> , <b>2020</b> , 16, 32-37	1.3	3
71	Resilience Bounds of Network Clock Synchronization with Fault Correction. <i>ACM Transactions on Sensor Networks</i> , <b>2020</b> , 16, 1-30	2.9	0
70	Crossbar-Constrained Technology Mapping for ReRAM Based In-Memory Computing. <i>IEEE Transactions on Computers</i> , <b>2020</b> , 69, 734-748	2.5	5
69	Flow Network Models for Online Scheduling Real-Time Tasks on Multiprocessors. <i>IEEE Access</i> , <b>2020</b> , 8, 172136-172151	3.5	1
68	PAC Model Checking of Black-Box Continuous-Time Dynamical Systems. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2020</b> , 39, 3944-3955	2.5	3
67	A schedule randomization policy to mitigate timing attacks in WirelessHART networks. <i>Real-Time Systems</i> , <b>2020</b> , 56, 452-489	1.3	3
66	. <i>IEEE Transactions on Parallel and Distributed Systems</i> , <b>2020</b> , 31, 171-186	3.7	7
65	A Practical Degradation Model for Mixed-Criticality Systems <b>2019</b> ,		3
64	A hierarchical framework for holistic optimization of the operations of district cooling systems. <i>Applied Energy</i> , <b>2019</b> , 239, 23-40	10.7	14
63	Towards safe machine learning for CPS <b>2019</b> ,		10
62	Design of an online-tuned model based compound controller for a fully automated artificial pancreas. <i>Medical and Biological Engineering and Computing</i> , <b>2019</b> , 57, 1437-1449	3.1	0
61	Dynamic budget management and budget reclamation for mixed-criticality systems. <i>Real-Time Systems</i> , <b>2019</b> , 55, 552-597	1.3	5
60	Challenges in Digital Twin Development for Cyber-Physical Production Systems. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 28-48	0.9	6
59	Probably Approximate Safety Verification of Hybrid Dynamical Systems. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 236-252	0.9	3

58	Guest Editor Introduction. <i>IEEE Embedded Systems Letters</i> , <b>2019</b> , 11, 33-33		1
57	Combining Task-level and System-level Scheduling Modes for Mixed Criticality Systems <b>2019</b> ,		1
56	TiLA: Twin-in-the-Loop Architecture for Cyber-Physical Production Systems <b>2019</b> ,		6
55	Managing Industrial Communication Delays with Software-Defined Networking <b>2019</b> ,		7
54	Automatic Generation of Hierarchical Contracts for Resilience in Cyber-Physical Systems <b>2019</b> ,		1
53	Flow Network-Based Real-Time Scheduling for Reducing Static Energy Consumption on Multiprocessors. <i>IEEE Access</i> , <b>2019</b> , 7, 1330-1344	3.5	3
52	Contract-Based Methodology for Developing Resilient Cyber-Infrastructure in the Industry 4.0 Era. <i>IEEE Embedded Systems Letters</i> , <b>2019</b> , 11, 5-8	1	3
51	Efficient Schedulability Test for Dynamic-Priority Scheduling of Mixed-Criticality Real-Time Systems. <i>Transactions on Embedded Computing Systems</i> , <b>2018</b> , 17, 1-24	1.8	1
50	Evaluation of an artificial pancreas in in silico patients with online-tuned internal model control. <i>Biomedical Signal Processing and Control</i> , <b>2018</b> , 41, 198-209	4.9	7
49	MC-Fluid: Multi-Core Fluid-Based Mixed-Criticality Scheduling. <i>IEEE Transactions on Computers</i> , <b>2018</b> , 67, 469-483	2.5	3
48	. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2018</b> , 37, 2720-2731	2.5	1
47	Mixed-Criticality Scheduling on Multiprocessors with Service Guarantees <b>2018</b> ,		7
46	<b>2018</b> ,		2
45	Multi-rate fluid scheduling of mixed-criticality systems on multiprocessors. <i>Real-Time Systems</i> , <b>2018</b> , 54, 247-277	1.3	2
44	Contract-Based Hierarchical Resilience Management for Cyber-Physical Systems. <i>Computer</i> , <b>2018</b> , 51, 56-65	1.6	4
43	Towards Overhead-Free Interface Theory for Compositional Hierarchical Real-Time Systems. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2018</b> , 37, 2869-2880	2.5	1
42	A systematic security analysis of real-time cyber-physical systems <b>2017</b> ,		5
41	Area-constrained technology mapping for in-memory computing using ReRAM devices <b>2017</b> ,		8

40	Underapproximating Backward Reachable Sets by Semialgebraic Sets. <i>IEEE Transactions on Automatic Control</i> , <b>2017</b> , 62, 5185-5197	5.9	13
39	Efficient decentralized active balancing strategy for smart battery cells <b>2017</b> ,		3
38	Probabilistic analysis for mixed criticality systems using fixed priority preemptive scheduling <b>2017</b> ,		10
37	Utilization difference based partitioned scheduling of mixed-criticality systems <b>2017</b> ,		5
36	Reach-Avoid Verification for Nonlinear Systems Based on Boundary Analysis. <i>IEEE Transactions on Automatic Control</i> , <b>2017</b> , 62, 3518-3523	5.9	14
35	Global EDF Schedulability Analysis for Parallel Tasks on Multi-Core Platforms. <i>IEEE Transactions on Parallel and Distributed Systems</i> , <b>2017</b> , 28, 1331-1345	3.7	18
34	Towards compositional mixed-criticality real-time scheduling in open systems. <i>ACM SIGBED Review</i> , <b>2016</b> , 13, 49-51	1.3	1
33	Dynamic Budget Management with Service Guarantees for Mixed-Criticality Systems <b>2016</b> ,		16
32	Under-Approximating Backward Reachable Sets by Polytopes. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 457-476	0.9	19
31	Resource Efficient Isolation Mechanisms in Mixed-Criticality Scheduling <b>2015</b> ,		27
30	. <i>IEEE Transactions on Computers</i> , <b>2015</b> , 64, 941-954	2.5	14
29	MC-Fluid: Simplified and Optimally Quantified <b>2015</b> ,		25
28	MC-Fluid: Fluid Model-Based Mixed-Criticality Scheduling on Multiprocessors <b>2014</b> ,		31
27	Contention-free executions for real-time multiprocessor scheduling. <i>Transactions on Embedded Computing Systems</i> , <b>2014</b> , 13, 1-25	1.8	8
26	Mapping Time-Critical Safety-Critical Cyber Physical Systems to Hybrid FPGAs <b>2014</b> ,		10
25	Demand-Based Scheduling of Mixed-Criticality Sporadic Tasks on One Processor <b>2013</b> ,		48
24	Global EDF Schedulability Analysis for Synchronous Parallel Tasks on Multicore Platforms <b>2013</b> ,		40
23	Laxity dynamics and LLF schedulability analysis on multiprocessor platforms. <i>Real-Time Systems</i> , <b>2012</b> , 48, 716-749	1.3	11

22	Convex optimization framework for intermediate deadline assignment in soft and hard real-time distributed systems. <i>Journal of Systems and Software</i> , <b>2012</b> , 85, 2331-2339	3.3	5
21	Extending Task-level to Job-level Fixed Priority Assignment and Schedulability Analysis Using Pseudo-deadlines <b>2012</b> ,		8
20	Model-based analysis of Timed-Triggered Ethernet <b>2012</b> ,		2
19	Maximizing Contention-Free Executions in Multiprocessor Scheduling <b>2011</b> ,		16
18	Zero-laxity based real-time multiprocessor scheduling. <i>Journal of Systems and Software</i> , <b>2011</b> , 84, 2324-2333	3.3	16
17	<b>2011</b> ,		35
16	CARTS. <i>ACM SIGBED Review</i> , <b>2011</b> , 8, 62-63	1.3	18
15	Multiprocessor real-time scheduling considering concurrency and urgency. <i>ACM SIGBED Review</i> , <b>2010</b> , 7, 1-5	1.3	3
14	Online robust optimization framework for QoS guarantees in distributed soft real-time systems <b>2010</b> ,		5
13	LLF Schedulability Analysis on Multiprocessor Platforms <b>2010</b> ,		16
12	Provably good multiprocessor scheduling with resource sharing. <i>Real-Time Systems</i> , <b>2010</b> , 46, 153-159	1.3	12
11	Resource Sharing in Global Fixed-Priority Preemptive Multiprocessor Scheduling <b>2009</b> ,		44
10	Scheduling Sporadic Tasks on Multiprocessors with Mutual Exclusion Constraints <b>2009</b> ,		2
9	Optimal virtual cluster-based multiprocessor scheduling. <i>Real-Time Systems</i> , <b>2009</b> , 43, 25-59	1.3	46
8	A Compositional Scheduling Framework for Digital Avionics Systems <b>2009</b> ,		30
7	Hierarchical Scheduling Framework for Virtual Clustering of Multiprocessors <b>2008</b> ,		87
6	Compositional Feasibility Analysis of Conditional Real-Time Task Models <b>2008</b> ,		12
5	Compositional Analysis Framework Using EDP Resource Models <b>2007</b> ,		73

4	Compositional Schedulability Analysis of Hierarchical Real-Time Systems <b>2007</b> ,		16
3	Incremental schedulability analysis of hierarchical real-time components <b>2006</b> ,		23
2	Steering of Discrete Event Systems: Control Theory Approach. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2006</b> , 144, 21-39	0.7	12
1	Simulation of Simultaneous Events in Regular Expressions for Run-Time Verification. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2005</b> , 113, 123-143	0.7	5