Rajesh K Gupta

List of Publications by Year
in descending order

45 papers	1,315 citations	840776 11 h-index	713466 21 g-index
45 all docs	45 docs citations	45 times ranked	1099 citing authors

#	Article	IF	Citations
1	Moneta: A High-Performance Storage Array Architecture for Next-Generation, Non-volatile Memories. , 2010, , .		207
2	Optimal Speed Control of Mobile Node for Data Collection in Sensor Networks. IEEE Transactions on Mobile Computing, 2010, 9, 127-139.	5.8	134
3	Brick : Metadata schema for portable smart building applications. Applied Energy, 2018, 226, 1273-1292.	10.1	129
4	Underdesigned and Opportunistic Computing in Presence of Hardware Variability. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2013, 32, 8-23.	2.7	125
5	Understanding the Impact of Emerging Non-Volatile Memories on High-Performance, IO-Intensive Computing. , 2010, , .		104
6	SnaPEA: Predictive Early Activation for Reducing Computation in Deep Convolutional Neural Networks. , 2018, , .		103
7	Translation Validation of High-Level Synthesis. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2010, 29, 566-579.	2.7	47
8	Application-Adaptive Guardbanding to Mitigate Static and Dynamic Variability. IEEE Transactions on Computers, 2014, 63, 2160-2173.	3.4	37
9	Energy-efficient neural networks using approximate computation reuse. , 2018, , .		35
10	Spatial Memoization: Concurrent Instruction Reuse to Correct Timing Errors in SIMD Architectures. IEEE Transactions on Circuits and Systems II: Express Briefs, 2013, 60, 847-851.	3.0	33
11	Variability Mitigation in Nanometer CMOS Integrated Systems: A Survey of Techniques From Circuits to Software. Proceedings of the IEEE, 2016, 104, 1410-1448.	21.3	32
12	CLIM: A Cross-Level Workload-Aware Timing Error Prediction Model for Functional Units. IEEE Transactions on Computers, 2018, 67, 771-783.	3.4	26
13	ACES. ACM Transactions on Sensor Networks, 2020, 16, 1-31.	3.6	24
14	QoS-Aware Scheduling of Heterogeneous Servers for Inference in Deep Neural Networks. , 2017, , .		23
15	Associative Memristive Memory for Approximate Computing in GPUs. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2016, 6, 222-234.	3.6	22
16	Analysis of instruction-level vulnerability to dynamic voltage and temperature variations. , 2012, , .		21
17	SLoT: A supervised learning model to predict dynamic timing errors of functional units. , 2017, , .		21
18	Sensor localization with deterministic accuracy guarantee. , 2011, , .		20

#	Article	IF	Citations
19	A variability-aware OpenMP environment for efficient execution of accuracy-configurable computation on shared-FPU processor clusters. , 2013, , .		20
20	Serving deep neural networks at the cloud edge for vision applications on mobile platforms. , 2019, , .		20
21	Binarized Convolutional Neural Networks with Separable Filters for Efficient Hardware Acceleration. , 2017, , .		17
22	Ember. , 2020, , .		16
23	A Wearable, Extensible, Open-Source Platform for Hearing Healthcare Research. IEEE Access, 2019, 7, 162083-162101.	4.2	12
24	Multi-tenant mobile offloading systems for real-time computer vision applications. , 2019, , .		10
25	Beyond a House of Sticks. , 2019, , .		10
26	Formalizing Tag-Based Metadata With the Brick Ontology. Frontiers in Built Environment, 2020, 6, .	2.3	9
27	Critical Risk Indicators (CRIs) for the electric power grid: a survey and discussion of interconnected effects. Environment Systems and Decisions, 2021, 41, 594-615.	3.4	9
28	Supervised learning based model for predicting variability-induced timing errors. , 2015, , .		8
29	Improving Resilience to Timing Errors by Exposing Variability Effects to Software in Tightly-Coupled Processor Clusters. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2014, 4, 216-229.	3.6	6
30	CIRCA-GPUs: Increasing Instruction Reuse Through Inexact Computing in GP-GPUs. IEEE Design and Test, 2016, 33, 85-92.	1.2	6
31	Accelerating Local Binary Pattern Networks with Software-Programmable FPGAs. , 2019, , .		5
32	Variability Expeditions: A Retrospective. IEEE Design and Test, 2019, 36, 65-67.	1.2	4
33	Resistive Bloom Filters: From Approximate Membership to Approximate Computing with Bounded Errors. , 2016, , .		3
34	Hardware/Software Codesign for Energy Efficiency and Robustness: From Error-Tolerant Computing to Approximate Computing. Embedded Systems, 2021, , 527-543.	0.6	3
35	Ember - energy management of batteryless event detection sensors with deep reinforcement learning. , 2020, , .		3
36	Synthesis and Optimization of Combinational Interface Circuits. Journal of Signal Processing Systems, 2002, 31, 243-261.	1.0	2

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37	Underdesigned and Opportunistic Computing. , 2011, , .		2
38	Mitigating Multi-tenant Interference in Continuous Mobile Offloading. Lecture Notes in Computer Science, 2018, , 20-36.	1.3	2
39	Editorial: Special Issue on Hardware/Software Partitioning. Design Automation for Embedded Systems, 1997, 2, 123-124.	1.0	1
40	Mitigating multi-tenant interference on mobile offloading servers. , 2017, , .		1
41	New models and methods for programming cyber-physical systems (keynote). , 2019, , .		1
42	Performance Analysis of Timing-Speculative Processors. IEEE Transactions on Computers, 2022, 71, 407-420.	3.4	1
43	Marble. , 2021, , .		1
44	Real Time Principal Component Analysis. , 2019, , .		0
45	Spatial and Temporal Memoization. , 2017, , 181-190.		0