Subhasish Mitra

List of Publications by Year in descending order

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296 papers 12,375 citations

41344 49 h-index 89 g-index

301 all docs

301 docs citations

301 times ranked

7326 citing authors

#	Article	IF	Citations
1	Logic Bug Detection and Localization Using Symbolic Quick Error Detection. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2024, , 1-1.	2.7	12
2	An Exhaustive Approach to Detecting Transient Execution Side Channels in RTL Designs of Processors. IEEE Transactions on Computers, 2023, 72, 222-235.	3.4	8
3	Dynamics of a single bubble rising in a quiescent medium. Experimental Thermal and Fluid Science, 2022, 132, 110546.	2.7	7
4	Bandgap Extraction at 10 K to Enable Leakage Control in Carbon Nanotube MOSFETs. IEEE Electron Device Letters, 2022, 43, 490-493.	3.9	11
5	Effect of turbulence dispersion on bubble-particle collision efficiency. Minerals Engineering, 2022, 177, 107374.	4.3	9
6	CHIMERA: A 0.92-TOPS, 2.2-TOPS/W Edge AI Accelerator With 2-MByte On-Chip Foundry Resistive RAM for Efficient Training and Inference. IEEE Journal of Solid-State Circuits, 2022, 57, 1013-1026.	5.4	15
7	Numerical Study into Gravity Separation of Phosphorus from BOS Slag during Solidification. ISIJ International, 2021, 61, 705-714.	1.4	2
8	Four-Bits-Per-Memory One-Transistor-and-Eight-Resistive-Random-Access-Memory (1T8R) Array. IEEE Electron Device Letters, 2021, 42, 335-338.	3.9	21
9	Iron Ore Sintering in Milli-Pot: Comparison to Pilot Scale and Identification of Maximum Resistance to Air Flow. ISIJ International, 2021, 61, 1469-1478.	1.4	2
10	CHIMERA: A 0.92 TOPS, 2.2 TOPS/W Edge AI Accelerator with 2 MByte On-Chip Foundry Resistive RAM for Efficient Training and Inference., 2021,,.		28
11	Split-Chip Design to Prevent IP Reverse Engineering. IEEE Design and Test, 2021, 38, 109-118.	1.2	5
12	Determining Drag Coefficient of Simplified Dendritic Particles in Metallurgical Systems. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 4841.	2.2	2
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14	Illusion of large on-chip memory by networked computing chips for neural network inference. Nature Electronics, 2021, 4, 71-80.	26.0	15
15	Direct visualisation of bubble-particle interactions in presence of cavitation bubbles in an ultrasonic flotation cell. Minerals Engineering, 2021, 174, 107258.	4.3	18
16	Effect of bubble surface loading on bubble rise velocity. Minerals Engineering, 2021, 174, 107252.	4.3	5
17	Spatially patterned bi-electrode epiretinal stimulation for axon avoidance at cellular resolution. Journal of Neural Engineering, 2021, 18, 066007.	3.5	9
18	Cross-Layer Resilience Against Soft Errors: Key Insights. Embedded Systems, 2021, , 249-275.	0.6	0

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19	Automatic Identification of Axon Bundle Activation for Epiretinal Prosthesis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 2496-2502.	4.9	9
20	Analysis of particle dispersion coefficient in solid-liquid fluidised beds. Powder Technology, 2020, 365, 60-73.	4.2	9
21	Estimation of dispersion coefficient in a solid-liquid fluidised bed system. Powder Technology, 2020, 374, 560-576.	4.2	6
22	Development of a flotation recovery model with CFD predicted collision efficiency. Minerals Engineering, 2020, 159, 106615.	4.3	15
23	A 35.6 TOPS/W/mm² 3-Stage Pipelined Computational SRAM With Adjustable Form Factor for Highly Data-Centric Applications. IEEE Solid-State Circuits Letters, 2020, 3, 286-289.	2.0	10
24	Molybdenum oxide on carbon nanotube: Doping stability and correlation with work function. Journal of Applied Physics, 2020, 128, 045111.	2.5	6
25	A Formal Approach for Detecting Vulnerabilities to Transient Execution Attacks in Out-of-Order Processors. , 2020, , .		14
26	Sensory Particles with Optical Telemetry. , 2020, , .		1
27	Hyperdimensional computing nanosystem: in-memory computing using monolithic 3D integration of RRAM and CNFET., 2020, , 195-219.		2
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32	Sub-0.5 nm Interfacial Dielectric Enables Superior Electrostatics: 65 mV/dec Top-Gated Carbon Nanotube FETs at 15 nm Gate Length. , 2020, , .		14
33	Heterogeneous 3D Nano-systems: The N3XT Approach?. The Frontiers Collection, 2020, , 127-151.	0.2	6
34	DECOY: DEflection-Driven HLS-Based Computation Partitioning for Obfuscating Intellectual PropertY. , 2020, , .		17
35	Hybrid Quick Error Detection: Validation and Debug of SoCs Through High-Level Synthesis. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2019, 38, 1345-1358.	2.7	1
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37	A Data-Compressive Wired-OR Readout for Massively Parallel Neural Recording. IEEE Transactions on Biomedical Circuits and Systems, 2019, 13, 1128-1140.	4.0	17
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40	Low-Temperature Side Contact to Carbon Nanotube Transistors: Resistance Distributions Down to 10 nm Contact Length. Nano Letters, 2019, 19, 1083-1089.	9.1	42
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43	A Data-Compressive Wired-OR Readout for Massively Parallel Neural Recording. , 2019, , .		5
44	14.3 A 43pJ/Cycle Non-Volatile Microcontroller with 4.7 \hat{l} 4s Shutdown/Wake-up Integrating 2.3-bit/Cell Resistive RAM and Resilience Techniques. , 2019, , .		13
45	Resistive RAM Endurance: Array-Level Characterization and Correction Techniques Targeting Deep Learning Applications. IEEE Transactions on Electron Devices, 2019, 66, 1281-1288.	3.0	43
46	Symbolic QED Pre-silicon Verification for Automotive Microcontroller Cores: Industrial Case Study. , 2019, , .		3
47	Unlocking the Power of Formal Hardware Verification with CoSA and Symbolic QED: Invited Paper. , 2019, , .		0
48	High-Density Multiple Bits-per-Cell 1T4R RRAM Array with Gradual SET/RESET and its Effectiveness for Deep Learning. , 2019 , , .		35
49	Monolithic 3-D Integration. IEEE Micro, 2019, 39, 16-27.	1.8	24
50	Memory Sizing of a Scalable SRAM In-Memory Computing Tile Based Architecture. , 2019, , .		17
51	The N3XT Approach to Energy-Efficient Abundant-Data Computing. Proceedings of the IEEE, 2019, 107, 19-48.	21.3	71
52	Analysis of dynamic interactions in a bubble-particle system in presence of an acoustic field. Minerals Engineering, 2019, 131, 111-123.	4.3	6
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57	Evaporation of a suspended binary mixture droplet in a heated flowing gas stream. Experimental Thermal and Fluid Science, 2018, 91, 329-344.	2.7	17
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60	Understanding Energy Efficiency Benefits of Carbon Nanotube Field-Effect Transistors for Digital VLSI. IEEE Nanotechnology Magazine, 2018, 17, 1259-1269.	2.0	87
61	TRIG: Hardware Accelerator for Inference-Based Applications and Experimental Demonstration Using Carbon Nanotube FETs., 2018,,.		3
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69	Evaporation of a sessile binary droplet on a heated spherical particle. Experimental Thermal and Fluid Science, 2018, 99, 558-571.	2.7	14
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74	Resistive RAM-Centric Computing: Design and Modeling Methodology. IEEE Transactions on Circuits and Systems I: Regular Papers, 2017, 64, 2263-2273.	5.4	61
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92	Hyperdimensional computing with 3D VRRAM in-memory kernels: Device-architecture co-design for energy-efficient, error-resilient language recognition. , 2016 , , .		95
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101	TPAD: Hardware Trojan Prevention and Detection for Trusted Integrated Circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 521-534.	2.7	79
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103	Efficient Soft Error Vulnerability Estimation of Complex Designs. , 2015, , .		14
104	Monolithic 3D Integration: A Path from Concept to Reality. , 2015, , .		31
105	Quick Error Detection Tests with Fast Runtimes for Effective Post-Silicon Validation and Debug. , 2015, , .		11
106	Partitioning Electrostatic and Mechanical Domains in Nanoelectromechanical Relays. Journal of Microelectromechanical Systems, 2015, 24, 592-598.	2.5	8
107	Rapid Co-Optimization of Processing and Circuit Design to Overcome Carbon Nanotube Variations. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2015, 34, 1082-1095.	2.7	36
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111	From nanodevices to nanosystems: The N3XT information technology. , 2015, , .		1
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126	Monolithic 3D integration advances and challenges: From technology to system levels. , 2014, , .		17

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132	Monolithic 3D integration of logic and memory: Carbon nanotube FETs, resistive RAM, and silicon FETs. , $2014, \ldots$		105
133	High-performance carbon nanotube field-effect transistors. , 2014, , .		37
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135	Rethinking error injection for effective resilience. , 2014, , .		10
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145	Reliability of graphene interconnects and n-type doping of carbon nanotube transistors., 2013,,.		O
146	Self-repair of uncore components in robust system-on-chips: An OpenSPARC T2 case study. , 2013, , .		17
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185	Carbon electronics — From material synthesis to circuit demonstration. , 2011, , .		1
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197	The case for RAMClouds. Operating Systems Review (ACM), 2010, 43, 92-105.	1.9	344
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