Amlan Ganguly

List of Publications by Year
in descending order

52 papers	1,514 citations	566801 15 h-index	610482 24 g-index
52 all docs	52 docs citations	52 times ranked	586 citing authors

#	Article	IF	Citations
1	Wireless NoC as Interconnection Backbone for Multicore Chips: Promises and Challenges. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2012, 2, 228-239.	2.7	237
2	Scalable Hybrid Wireless Network-on-Chip Architectures for Multicore Systems. IEEE Transactions on Computers, 2011, 60, 1485-1502.	2.4	229
3	Design of an Energy-Efficient CMOS-Compatible NoC Architecture with Millimeter-Wave Wireless Interconnects. IEEE Transactions on Computers, 2013, 62, 2382-2396.	2.4	167
4	Crosstalk-Aware Channel Coding Schemes for Energy Efficient and Reliable NOC Interconnects. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2009, 17, 1626-1639.	2.1	101
5	Performance evaluation and design trade-offs for wireless network-on-chip architectures. ACM Journal on Emerging Technologies in Computing Systems, 2012, 8, 1-25.	1.8	87
6	Enhancing performance of network-on-chip architectures with millimeter-wave wireless interconnects. , 2010, , .		61
7	A Wireless Interconnection Framework for Seamless Inter and Intra-Chip Communication in Multichip Systems. IEEE Transactions on Computers, 2017, 66, 389-402.	2.4	54
8	Design of Low power & Reliable Networks on Chip through joint crosstalk avoidance and forward error correction coding. Defect and Fault Tolerance in VLSI Systems, Proceedings of the IEEE International Symposium on, 2006, , .	0.0	41
9	Design Space Exploration for Wireless NoCs Incorporating Irregular Network Routing. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2014, 33, 1732-1745.	1.9	41
10	Design of Low Power & Reliable Networks on Chip Through Joint Crosstalk Avoidance and Multiple Error Correction Coding. Journal of Electronic Testing: Theory and Applications (JETTA), 2008, 24, 67-81.	0.9	40
11	CDMA Enabled Wireless Network-on-Chip. ACM Journal on Emerging Technologies in Computing Systems, 2014, 10, 1-20.	1.8	37
12	A Review of In-Memory Computing Architectures for Machine Learning Applications. , 2020, , .		31
13	Securing a Wireless Network-on-Chip Against Jamming-Based Denial-of-Service and Eavesdropping Attacks. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2019, 27, 2781-2791.	2.1	27
14	The Advances, Challenges and Future Possibilities of Millimeter-Wave Chip-to-Chip Interconnections for Multi-Chip Systems. Journal of Low Power Electronics and Applications, 2018, 8, 5.	1.3	25
15	A Unified Error Control Coding Scheme to Enhance the Reliability of a Hybrid Wireless Network-on-Chip. , 2011, , .		22
16	Addressing Signal Integrity in Networks on Chip Interconnects through Crosstalk-Aware Double Error Correction Coding. , 2007, , .		18
17	Reconfigurable Wireless Network-on-Chip with a Dynamic Medium Access Mechanism. , 2015, , .		18
18	pPIM: A Programmable Processor-in-Memory Architecture With Precision-Scaling for Deep Learning. IEEE Computer Architecture Letters, 2020, 19, 118-121.	1.0	18

#	Article	IF	Citations
19	A Survey on Machine Learning Accelerators and Evolutionary Hardware Platforms. IEEE Design and Test, 2022, 39, 91-116.	1.1	17
20	Performance evaluation of wireless networks on chip architectures. , 2009, , .		16
21	A denial-of-service resilient wireless NoC architecture. , 2012, , .		16
22	NoC architectures with adaptive Code Division Multiple Access based wireless links. , 2012, , .		16
23	Intra- and Inter-Chip Transmission of Millimeter-Wave Interconnects in NoC-Based Multi-Chip Systems. IEEE Access, 2019, 7, 112200-112215.	2.6	16
24	Energy-Efficient Multicore Chip Design through Cross-Layer Approach. , 2013, , .		14
25	Design Methodology for a Robust and Energy-Efficient Millimeter-Wave Wireless Network-on-Chip. IEEE Transactions on Multi-Scale Computing Systems, 2015, 1, 33-45.	2.5	14
26	Performance Evaluation of a Power-Efficient and Robust 60 GHz Wireless Server-to-Server Datacenter Network. IEEE Transactions on Green Communications and Networking, 2018, 2, 1174-1185.	3.5	14
27	Task Selection by Autonomous Mobile Robots in A Warehouse Using Deep Reinforcement Learning. , 2019, , .		13
28	Comparative performance evaluation of wireless and optical NoC architectures. , 2010, , .		12
29	Interconnects for DNA, Quantum, In-Memory, and Optical Computing: Insights From a Panel Discussion. IEEE Micro, 2022, 42, 40-49.	1.8	11
30	Crosstalk-aware Energy Reduction in NoC Communication Fabrics. , 2006, , .		9
31	Design space exploration for reliable mm-wave wireless NoC architectures. , 2013, , .		9
32	Performance evaluation of reliability aware photonic Network-on-Chip architectures. , 2012, , .		8
33	An Interconnection Architecture for Seamless Inter and Intra-Chip Communication Using Wireless Links. , 2015, , .		8
34	Look-up-Table Based Processing-in-Memory Architecture With Programmable Precision-Scaling for Deep Learning Applications. IEEE Transactions on Parallel and Distributed Systems, 2022, 33, 263-275.	4.0	8
35	Increasing interposer utilization: A scalable, energy efficient and high bandwidth multicore-multichip integration solution. , 2017, , .		7
36	Antenna Arrays as Millimeter-Wave Wireless Interconnects in Multichip Systems. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 1973-1977.	2.4	7

#	Article	IF	Citations
37	AWARe-Wi: A jamming-aware reconfigurable wireless interconnection using adversarial learning for multichip systems. Sustainable Computing: Informatics and Systems, 2021, 29, 100470.	1.6	7
38	SIMULATION ANALYSIS OF A DEEP REINFORCEMENT LEARNING APPROACH FOR TASK SELECTION BY AUTONOMOUS MATERIAL HANDLING VEHICLES. , 2018, , .		6
39	Intra-chip Wireless Interconnect. , 2017, , .		5
40	A One-to-Many Traffic Aware Wireless Network-in-Package for Multi-Chip Computing Platforms. , 2018, , .		5
41	uPIM: Performance-aware Online Learning Capable Processing-in-Memory. , 2021, , .		5
42	An Asymmetric, One-To-Many Traffic-Aware mm-Wave Wireless Interconnection Architecture for Multichip Systems. IEEE Transactions on Emerging Topics in Computing, 2022, 10, 324-338.	3.2	3
43	Intra- and Inter-Server Smart Task Scheduling for Profit and Energy Optimization of HPC Data Centers. Journal of Low Power Electronics and Applications, 2020, 10, 32.	1.3	3
44	Architecting a Secure Wireless Interconnect for Multichip Communication: An ML Approach. , 2020, , .		3
45	Novel interconnect infrastructures for massive multicore chips â€" an overview. , 2008, , .		2
46	Evaluating effects of thermal management in wireless NoC-enabled multicore architectures. , 2013, , .		2
47	KF-Loc: A Kalman Filter and Machine Learning Integrated Localization System Using Consumer-Grade Millimeter-Wave Hardware. IEEE Consumer Electronics Magazine, 2022, 11, 65-77.	2.3	2
48	Flexible Instruction Set Architecture for Programmable Look-up Table based Processing-in-Memory. , 2021, , .		1
49	An Ultra-efficient Look-up Table based Programmable Processing in Memory Architecture for Data Encryption. , 2021, , .		1
50	Enhancement of Intra-chip Transmission between Wireless Interconnects using Artificial Magnetic Conductors. , 2018, , .		0
51	Disc-Loaded, Vertical Top-Hat Monopole Antenna at 225 GHz for On-Chip Wireless Communications. , 2019, , .		0
52	Guest Editorsâ€™ Introduction: Special Issue on Benchmarking Machine Learning Systems and Applications. IEEE Design and Test, 2022, 39, 5-7.	1.1	0