## Massoud Pedram

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/3677717/publications.pdf

Version: 2024-02-01

514 papers

10,947 citations

38 h-index 65 g-index

519 all docs

519 docs citations

519 times ranked

6269 citing authors

#	Article	IF	CITATIONS
1	An Adaptive Memory-Side Encryption Method for Improving Security and Lifetime of PCM-Based Main Memory. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 1744-1756.	2.7	3
2	High-Radix Design of a Scalable Montgomery Modular Multiplier With Low Latency. IEEE Transactions on Computers, 2022, 71, 436-449.	3.4	5
3	AÂ <sup>2</sup> P-MANN: Adaptive Attention Inference Hops Pruned Memory-Augmented Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2022, PP, 1-13.	11.3	O
4	All-Digital Phase-Locked Loop in Single Flux Quantum Circuit Technology. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-8.	1.7	1
5	Posit Process Element for Using in Energy-Efficient DNN Accelerators. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2022, 30, 844-848.	3.1	2
6	HiPerRF: A Dual-Bit Dense Storage SFQ Register File. , 2022, , .		3
7	DigiQ: A Scalable Digital Controller for Quantum Computers Using SFQ Logic. , 2022, , .		10
8	BMPQ: Bit-Gradient Sensitivity-Driven Mixed-Precision Quantization of DNNs from Scratch., 2022,,.		6
9	X-NVDLA: Runtime Accuracy Configurable NVDLA based on Employing Voltage Overscaling Approach. , 2022, , .		1
10	An Efficient Error Estimation Technique for Pruning Approximate Data-Flow Graphs in Design Space Exploration. , 2022, , .		1
11	Sparse Periodic Systolic Dataflow for Lowering Latency and Power Dissipation of Convolutional Neural Network Accelerators. , 2022, , .		O
12	Developing TEI-Aware Ultralow-Power SoC Platforms for IoT End Nodes. IEEE Internet of Things Journal, 2021, 8, 4642-4656.	8.7	10
13	JointDNN: An Efficient Training and Inference Engine for Intelligent Mobile Cloud Computing Services. IEEE Transactions on Mobile Computing, 2021, 20, 565-576.	5.8	145
14	Therminator 2: A Fast Thermal Simulator for Portable Devices. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2021, 40, 2528-2541.	2.7	7
15	Depth-bounded Graph Partitioning Algorithm and Dual Clocking Method for Realization of Superconducting SFQ Circuits. ACM Journal on Emerging Technologies in Computing Systems, 2021, 17, 1-22.	2.3	2
16	OPTIMA: An Approach for Online Management of Cache Approximation Levels in Approximate Processing Systems. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2021, 29, 434-446.	3.1	0
17	Coarse2Fine: a two-stage training method for fine-grained visual classification. Machine Vision and Applications, 2021, 32, 1.	2.7	6
18	NullaNet Tiny: Ultra-low-latency DNN Inference Through Fixed-function Combinational Logic., 2021,,.		6

#	Article	IF	CITATIONS
19	qMC., 2021,,.		4
20	Loading-Aware Reliability Improvement of Ultra-Low Power Memristive Neural Networks. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 3411-3421.	5.4	3
21	A Variation-aware Hold Time Fixing Methodology for Single Flux Quantum Logic Circuits. ACM Transactions on Design Automation of Electronic Systems, 2021, 26, 1-17.	2.6	0
22	An 8-b Multiplier Using Single-Stage Full Adder Cell in Single-Flux-Quantum Circuit Technology. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-10.	1.7	7
23	CD-DFT: A Current-Difference Design-for-Testability to Detect Short Defects of STT-MRAM Under Process Variations. IEEE Transactions on Device and Materials Reliability, 2021, 21, 436-443.	2.0	4
24	LATIM: Loading-Aware Offline Training Method for Inverter-Based Memristive Neural Networks. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 3346-3350.	3.0	5
25	Reliability Enhancement of Inverter-Based Memristor Crossbar Neural Networks Using Mathematical Analysis of Circuit Non-Idealities. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4310-4323.	5.4	8
26	DNR., 2021,,.		18
27	Spike-Thrift: Towards Energy-Efficient Deep Spiking Neural Networks by Limiting Spiking Activity via Attention-Guided Compression. , 2021, , .		37
28	A Logic Verification Framework for SFQ and AQFP Superconducting Circuits. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-11.	1.7	3
29	qSeq: Full Algorithmic and Tool Support for Synthesizing Sequential Circuits in Superconducting SFQ Technology. , 2021, , .		2
30	HIRE-SNN: Harnessing the Inherent Robustness of Energy-Efficient Deep Spiking Neural Networks by Training with Crafted Input Noise. , 2021, , .		21
31	Block-Based Carry Speculative Approximate Adder for Energy-Efficient Applications. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 137-141.	3.0	43
32	DART: A Framework for Determining Approximation Levels in an Approximable Memory Hierarchy. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2020, 28, 273-286.	3.1	7
33	X-CGRA: An Energy-Efficient Approximate Coarse-Grained Reconfigurable Architecture. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 2558-2571.	2.7	31
34	RandShift: An Energy-Efficient Fault-Tolerant Method in Secure Nonvolatile Main Memory. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2020, 28, 287-291.	3.1	4
35	An Efficient Pipelined Architecture for Superconducting Single Flux Quantum Logic Circuits Utilizing Dual Clocks. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-12.	1.7	17
36	SystemVerilog Modeling of SFQ and AQFP Circuits. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-13.	1.7	12

#	Article	IF	Citations
37	Res-DNN: A Residue Number System-Based DNN Accelerator Unit. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 658-671.	5.4	37
38	POLAR: A Pipelined/Overlapped FPGA-Based LSTM Accelerator. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2020, 28, 838-842.	3.1	32
39	Energy Efficiency in 5G Cellular Network Systems. IEEE Design and Test, 2020, 37, 64-78.	1.2	4
40	Circuit-Level Techniques for Logic and Memory Blocks in Approximate Computing Systemsx. Proceedings of the IEEE, 2020, 108, 2150-2177.	21.3	16
41	Static Timing Analysis (STA) with Timing Bleed: Certifying Much Higher Performance for Rapid Single Flux Quantum (RSFQ) Logic. Journal of Physics: Conference Series, 2020, 1559, 012003.	0.4	3
42	EGAN: A Framework for Exploring the Accuracy vs. Energy Efficiency Trade-off in Hardware Implementation of Error Resilient Applications. , 2020, , .		5
43	A Stochastic Framework for Virtualization Layer Deployment in Vehicular Cloud Networks., 2020,,.		1
44	NN-PARS: A Parallelized Neural Network Based Circuit Simulation Framework., 2020, , .		1
45	qSSTA: A Statistical Static Timing Analysis Tool for Superconducting Single-Flux-Quantum Circuits. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-12.	1.7	7
46	A Timing Uncertainty-Aware Clock Tree Topology Generation Algorithm for Single Flux Quantum Circuits. , 2020, , .		4
47	NISQ+: Boosting quantum computing power by approximating quantum error correction., 2020,,.		34
48	Oâ-DNN: A Hybrid DSP-LUT-Based Processing Unit With Operation Packing and Out-of-Order Execution for Efficient Realization of Convolutional Neural Networks on FPGA Devices. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 3056-3069.	5.4	2
49	Offline Training Improvement of Inverter-Based Memristive Neural Networks Using Inverter Voltage Characteristic Smoothing. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 3442-3446.	3.0	4
50	Pre-defined Sparsity for Low-Complexity Convolutional Neural Networks. IEEE Transactions on Computers, 2020, , 1-1.	3.4	29
51	qSTA: A Static Timing Analysis Tool for Superconducting Single-Flux-Quantum Circuits. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-9.	1.7	6
52	Design Exploration of Energy-Efficient Accuracy-Configurable Dadda Multipliers With Improved Lifetime Based on Voltage Overscaling. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2020, 28, 1207-1220.	3.1	24
53	Postrouting Optimization of the Working Clock Frequency of Single-Flux-Quantum Circuits. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-14.	1.7	1
54	Deep-PowerX. , 2020, , .		5

#	Article	IF	Citations
55	Interstice: Inverter-Based Memristive Neural Networks Discretization for Function Approximation Applications. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2020, 28, 1578-1588.	3.1	9
56	TDP-ADMM: A Timing Driven Placement Approach for Superconductive Electronic Circuits Using Alternating Direction Method of Multipliers. , 2020, , .		4
57	Retiming for high-performance superconductive circuits with register energy minimization., 2020,,.		1
58	Runtime Deep Model Multiplexing for Reduced Latency and Energy Consumption Inference., 2020,,.		4
59	ACHILLES: Accuracy-Aware High-Level Synthesis Considering Online Quality Management. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2019, 38, 1452-1465.	2.7	3
60	TEI-ULP: Exploiting Body Biasing to Improve the TEI-Aware Ultralow Power Methods. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2019, 38, 1758-1770.	2.7	7
61	A Theoretical Framework for Quality Estimation and Optimization of DSP Applications Using Low-Power Approximate Adders. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 327-340.	5.4	30
62	Approximate Logic Synthesis: A Reinforcement Learning-Based Technology Mapping Approach., 2019,,.		13
63	VeriSFQ: A Semi-formal Verification Framework and Benchmark for Single Flux Quantum Technology. , 2019, , .		16
64	qGDR: A Via-Minimization-Oriented Routing Tool for Large-Scale Superconductive Single-Flux-Quantum Circuits. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-12.	1.7	16
65	TIP: A Temperature Effect Inversion-Aware Ultra-Low Power System-on-Chip Platform., 2019,,.		7
66	OCTAN: An On-Chip Training Algorithm for Memristive Neuromorphic Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 4687-4698.	5.4	12
67	Towards Green Mobile Networks: Concurrent User Association and Dynamic Switching in Cells. , 2019,		1
68	A Meta-Learning Approach for Custom Model Training. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 9937-9938.	4.9	1
69	A Minimum-Skew Clock Tree Synthesis Algorithm for Single Flux Quantum Logic Circuits. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-13.	1.7	20
70	Towards Collaborative Intelligence Friendly Architectures for Deep Learning. , 2019, , .		19
71	BottleNet: A Deep Learning Architecture for Intelligent Mobile Cloud Computing Services. , 2019, , .		89
72	Deep Learning-Based Circuit Recognition Using Sparse Mapping and Level-Dependent Decaying Sum Circuit Representations., 2019,,.		16

#	Article	IF	Citations
73	CSrram: Area-Efficient Low-Power Ex-Situ Training Framework for Memristive Neuromorphic Circuits Based on Clustered Sparsity. , 2019, , .		5
74	Timing Characterization for Static Timing Analysis of Single Flux Quantum Circuits. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-8.	1.7	13
75	TOSAM: An Energy-Efficient Truncation- and Rounding-Based Scalable Approximate Multiplier. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2019, 27, 1161-1173.	3.1	93
76	ColdFlux Superconducting EDA and TCAD Tools Project: Overview and Progress. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-7.	1.7	50
77	Energy-efficient, low-latency realization of neural networks through boolean logic minimization. , 2019, , .		26
78	Hybrid Cell Assignment and Sizing for Power, Area, Delay-Product Optimization of SRAM Arrays. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 2047-2051.	3.0	3
79	A Hybrid Framework for Functional Verification using Reinforcement Learning and Deep Learning. , 2019, , .		3
80	Balanced Factorization and Rewriting Algorithms for Synthesizing Single Flux Quantum Logic Circuits. , 2019, , .		8
81	Simulation Analysis and Energy-Saving Techniques for ERSFQ Circuits. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-7.	1.7	14
82	kNN-CAM: A k-Nearest Neighbors-based Configurable Approximate Floating Point Multiplier. , 2019, , .		8
83	Design Space Exploration of Memory Controller Placement in Throughput Processors with Deep Learning. IEEE Computer Architecture Letters, 2019, 18, 51-54.	1.5	7
84	qCG: A Low-Power Multi-Domain SFQ Logic Design and Verification Framework. , 2019, , .		4
85	A Statistical Static Timing Analysis Tool for Superconducting Single-Flux-Quantum Circuits. , 2019, , .		5
86	A Dynamic Programming-Based, Path Balancing Technology Mapping Algorithm Targeting Area Minimization. , $2019$ , , .		14
87	CSM-NN: Current Source Model Based Logic Circuit Simulation - A Neural Network Approach. , 2019, , .		4
88	A Clock Synthesis Algorithm for Hierarchical Chains of Homogeneous Clover-Leaves Clock Networks for Single Flux Quantum Logic Circuits. , 2019, , .		0
89	Design of an SFQ Full Adder as a Single-Stage Gate. , 2019, , .		2
90	A Hyper-Parameter Based Margin Calculation Algorithm for Single Flux Quantum Logic Cells. , 2019, , .		2

#	Article	IF	CITATIONS
91	Lowâ€power data encoding/decoding for energyâ€efficient static random access memory design. IET Circuits, Devices and Systems, 2019, 13, 1152-1159.	1.4	5
92	PBMap: A Path Balancing Technology Mapping Algorithm for Single Flux Quantum Logic Circuits. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-14.	1.7	38
93	Hierarchical, Portfolio Theory-Based Virtual Machine Consolidation in a Compute Cloud. IEEE Transactions on Services Computing, 2018, 11, 63-77.	4.6	13
94	An Efficient False Path-Aware Heuristic Critical Path Selection Method with High Coverage of the Process Variation Space. ACM Transactions on Design Automation of Electronic Systems, 2018, 23, 1-25.	2.6	2
95	PHAX: Physical Characteristics Aware <italic>Ex-Situ</italic> Training Framework for Inverter-Based Memristive Neuromorphic Circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2018, 37, 1602-1613.	2.7	20
96	An Ultra Low-Power Memristive Neuromorphic Circuit for Internet of Things Smart Sensors. IEEE Internet of Things Journal, 2018, 5, 1011-1022.	8.7	32
97	Superconducting Magnetic Field Programmable Gate Array. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-12.	1.7	25
98	Lifetime improvement by exploiting aggressive voltage scaling during runtime of error-resilient applications. The Integration VLSI Journal, 2018, 61, 29-38.	2.1	14
99	Accurate margin calculation for single flux quantum logic cells. , 2018, , .		7
100	The SPoT: Thermal Stress-Aware Power and Temperature Management for Multiprocessor Systems-on-Chip. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2018, 37, 1532-1545.	2.7	26
101	RAP-CLA: A Reconfigurable Approximate Carry Look-Ahead Adder. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 1089-1093.	3.0	98
102	An Exploration of Applying Gate-Length-Biasing Techniques to Deeply-Scaled FinFETs Operating in Multiple Voltage Regimes. IEEE Transactions on Emerging Topics in Computing, 2018, 6, 172-183.	4.6	7
103	TEI-NoC: Optimizing Ultralow Power NoCs Exploiting the Temperature Effect Inversion. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2018, 37, 458-471.	2.7	16
104	Design automation methodology and tools for superconductive electronics. , 2018, , .		10
105	Approximate Reverse Carry Propagate Adder for Energy-Efficient DSP Applications. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 2530-2541.	3.1	58
106	Energy-Efficient Computing: Datacenters, Mobile Devices, and Mobile Clouds. , 2018, , .		0
107	Power Management of Cache-Enabled Cooperative Base Stations Towards Zero Grid Energy. , 2018, , .		5
108	Toward Approximate Computing for Coarse-Grained Reconfigurable Architectures. IEEE Micro, 2018, 38, 63-72.	1.8	16

#	Article	lF	Citations
109	SFQmap: A Technology Mapping Tool for Single Flux Quantum Logic Circuits. , 2018, , .		27
110	Opportunities for Machine Learning in Electronic Design Automation. , 2018, , .		20
111	A 125mV 2ns-access-time 16Kb SRAM design based on a 6T hybrid TFET-FinFET cell. , 2018, , .		1
112	An Energy-Efficient, Yet Highly-Accurate, Approximate Non-Iterative Divider. , 2018, , .		11
113	Energy and Performance Efficient Computation Offloading for Deep Neural Networks in a Mobile Cloud Computing Environment. , 2018, , .		60
114	Logic Optimization, Complex Cell Design, and Retiming of Single Flux Quantum Circuits. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-9.	1.7	25
115	Energy and Reliability Improvement of Voltage-Based, Clustered, Coarse-Grain Reconfigurable Architectures by Employing Quality-Aware Mapping. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 480-493.	3.6	17
116	A hardware-friendly algorithm for scalable training and deployment of dimensionality reduction models on FPGA. , $2018$ , , .		8
117	A placement algorithm for superconducting logic circuits based on cell grouping and super-cell placement. , 2018, , .		14
118	FFT-based deep learning deployment in embedded systems. , 2018, , .		29
119	Internal writeâ€back and readâ€beforeâ€write schemes to eliminate the disturbance to the halfâ€selected cells in SRAMs. IET Circuits, Devices and Systems, 2018, 12, 460-466.	1.4	20
120	VIBNN., 2018,,.		39
121	PX-CGRA: Polymorphic approximate coarse-grained reconfigurable architecture. , 2018, , .		29
122	Energy Consumption and Lifetime Improvement of Coarse-Grained Reconfigurable Architectures Targeting Low-Power Error-Tolerant Applications. , 2018, , .		5
123	Toward Enabling Automated Cognition and Decision-Making in Complex Cyber-Physical Systems. , 2018, , .		8
124	VIBNN. ACM SIGPLAN Notices, 2018, 53, 476-488.	0.2	32
125	Dual-Quality 4:2 Compressors for Utilizing in Dynamic Accuracy Configurable Multipliers. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2017, 25, 1352-1361.	3.1	188
126	Design of multiple fanout clock distribution network for rapid single flux quantum technology. , 2017, , .		17

#	Article	IF	CITATIONS
127	An energy and area efficient yet high-speed square-root carry select adder structure. Computers and Electrical Engineering, 2017, 58, 101-112.	4.8	9
128	CALM. ACM Transactions on Design Automation of Electronic Systems, 2017, 22, 1-21.	2.6	1
129	An Integrated Row-Based Cell Placement and Interconnect Synthesis Tool for Large SFQ Logic Circuits. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-8.	1.7	61
130	Pilot Register File: Energy Efficient Partitioned Register File for GPUs., 2017,,.		26
131	Optimal Joint Management of Charging and Battery Swapping Services for Electric Vehicles. , 2017, , .		3
132	TruncApp: A truncation-based approximate divider for energy efficient DSP applications. , 2017, , .		33
133	TEI-power. ACM Transactions on Design Automation of Electronic Systems, 2017, 22, 1-25.	2.6	8
134	Robust neuromorphic computing in the presence of process variation., 2017,,.		12
135	Efficient Critical Path Identification Based on Viability Analysis Method Considering Process Variations. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2017, 25, 2668-2672.	3.1	4
136	A thermally-aware energy minimization methodology for global interconnects. , 2017, , .		0
137	High-performance FPGA implementation of equivariant adaptive separation via independence algorithm for Independent Component Analysis. , 2017, , .		4
138	Optimal Control of PEVs with a Charging Aggregator Considering Regulation Service Provisioning. ACM Transactions on Cyber-Physical Systems, 2017, 1, 1-23.	2.5	1
139	Robust Hybrid TFET-MOSFET Circuits in Presence of Process Variations and Soft Errors. IFIP Advances in Information and Communication Technology, 2017, , 41-59.	0.7	0
140	LETAM: A low energy truncation-based approximate multiplier. Computers and Electrical Engineering, 2017, 63, 1-17.	4.8	34
141	Hybrid TFET-MOSFET circuit: A solution to design soft-error resilient ultra-low power digital circuit. The Integration VLSI Journal, 2017, 57, 11-19.	2.1	9
142	An optimal energy co-scheduling framework for smart buildings. The Integration VLSI Journal, 2017, 58, 528-537.	2.1	11
143	RoBA Multiplier: A Rounding-Based Approximate Multiplier for High-Speed yet Energy-Efficient Digital Signal Processing. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2017, 25, 393-401.	3.1	130
144	Gate-all-around FET based 6T SRAM design using a device-circuit co-optimization framework. , 2017, , .		3

#	Article	IF	Citations
145	Context-driven power management in cache-enabled base stations using a Bayesian neural network. , 2017, , .		5
146	Design of Complex Rapid Single-Flux-Quantum Cells with Application to Logic Synthesis., 2017,,.		15
147	CTS2M: concurrent task scheduling and storage management for residential energy consumers under dynamic energy pricing. IET Cyber-Physical Systems: Theory and Applications, 2017, 2, 111-117.	3.3	10
148	Hierarchical resource allocation and consolidation framework in a multi ore server cluster using a Markov decision process model. IET Cyber-Physical Systems: Theory and Applications, 2017, 2, 118-126.	3.3	2
149	Achieving Energy Efficiency in Datacenters by Virtual Machine Sizing, Replication, and Placement. Advances in Computers, 2016, 100, 161-200.	1.6	7
150	Standard cell library based layout characterization and power analysis for 10nm gate-all-around (GAA) transistors. , 2016, , .		5
151	Power-aware virtual machine mapping in the data-center-on-a-chip paradigm. , 2016, , .		1
152	Hybrid TFET-MOSFET circuits: An approach to design reliable ultra-low power circuits in the presence of process variation. , $2016,  ,  .$		2
153	Efficient Peak Shaving in a Data Center by Joint Optimization of Task Assignment and Energy Storage Management. , 2016, , .		1
154	A Profit Optimization Framework of Energy Storage Devices in Data Centers: Hierarchical Structure and Hybrid Types. , 2016, , .		0
155	Simulation of NoC power-gating: Requirements, optimizations, and the Agate simulator. Journal of Parallel and Distributed Computing, 2016, 95, 69-78.	4.1	9
156	Layout Optimization for Quantum Circuits with Linear Nearest Neighbor Architectures. IEEE Circuits and Systems Magazine, 2016, 16, 62-74.	2.3	27
157	Optimizing the Operating Voltage of Tunnel FET-Based SRAM Arrays Equipped with Read/Write Assist Circuitry. , 2016, , .		1
158	Minimizing the energy-delay product of SRAM arrays using a device-circuit-architecture co-optimization framework. , 2016, , .		10
159	Study on the impact of device parameter variations on performance of III-V homojunction and heterojunction tunnel FETs. Solid-State Electronics, 2016, 124, 46-53.	1.4	5
160	A Reinforcement Learning-Based Power Management Framework for Green Computing Data Centers. , 2016, , .		23
161	An efficient timing analysis model for 6T FinFET SRAM using current-based method. , 2016, , .		5
162	Maximizing the performance of NoC-based MPSoCs under total power and power density constraints. , 2016, , .		5

#	Article	IF	CITATIONS
163	Negotiation-based resource provisioning and task scheduling algorithm for cloud systems. , 2016, , .		7
164	Hierarchical SLA-Driven Resource Management for Peak Power-Aware and Energy-Efficient Operation of a Cloud Datacenter. IEEE Transactions on Cloud Computing, 2016, 4, 222-236.	4.4	20
165	Optimal co-scheduling of HVAC control and battery management for energy-efficient buildings considering state-of-health degradation. , 2016, , .		14
166	Toward a Profitable Grid-Connected Hybrid Electrical Energy Storage System for Residential Use. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 1151-1164.	2.7	7
167	Providing Balanced Mapping for Multiple Applications in Many-Core Chip Multiprocessors. IEEE Transactions on Computers, 2016, 65, 3122-3135.	3.4	3
168	Model-Free Reinforcement Learning and Bayesian Classification in System-Level Power Management. IEEE Transactions on Computers, 2016, 65, 3713-3726.	3.4	30
169	Concurrent Task Scheduling and Dynamic Voltage and Frequency Scaling in a Real-Time Embedded System With Energy Harvesting. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 1890-1902.	2.7	25
170	Yield and Speedup Improvements in Extensible Processors by Allocating Extra Cycles to Some Custom Instructions. ACM Transactions on Design Automation of Electronic Systems, 2016, 21, 1-25.	2.6	39
171	An efficient temperature dependent hot carrier injection reliability simulation flow. Microelectronics Reliability, 2016, 57, 10-19.	1.7	0
172	A comparative study on performance and reliability of 32-bit binary adders. The Integration VLSI Journal, 2016, 53, 54-67.	2.1	8
173	All-Region Statistical Model for Delay Variation Based on Log-Skew-Normal Distribution. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 1503-1508.	2.7	17
174	A Near-Optimal Model-Based Control Algorithm for Households Equipped With Residential Photovoltaic Power Generation and Energy Storage Systems. IEEE Transactions on Sustainable Energy, 2016, 7, 77-86.	8.8	104
175	Joint Charge and Thermal Management for Batteries in Portable Systems With Hybrid Power Sources. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 611-622.	2.7	6
176	Reconfigurable Photovoltaic Array Systems for Adaptive and Fault-Tolerant Energy Harvesting. KAIST Research Series, 2016, , 181-209.	1.5	1
177	High-Speed and Energy-Efficient Carry Skip Adder Operating Under a Wide Range of Supply Voltage Levels. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2016, 24, 421-433.	3.1	43
178	Energy-Efficient Cache Memories using a Dual-Vt 4T SRAM Cell with Read-Assist Techniques., 2016,,.		2
179	SEERAD: A High Speed yet Energy-Efficient Rounding-based Approximate Divider. , 2016, , .		29
180	Profit maximization algorithms for utility companies in an oligopolistic energy market with dynamic prices and intelligent users. AIMS Energy, 2016, 4, 119-135.	1.9	2

#	Article	IF	Citations
181	10nm Gate-length junctionless gate-all-around (JL-GAA) FETs based 8T SRAM design under process variation using a cross-layer simulation. , $2015, \dots$		4
182	Power-Efficient Control of Thermoelectric Coolers Considering Distributed Hot Spots., 2015,,.		3
183	A Thermal Stress-Aware Algorithm for Power and Temperature Management of MPSoCs. , 2015, , .		3
184	Accurate Electrothermal Modeling of Thermoelectric Generators. , 2015, , .		7
185	A FinFET SRAM cell design with BTI robustness at high supply voltages and high yield at low supply voltages. International Journal of Circuit Theory and Applications, 2015, 43, 2011-2024.	2.0	7
186	Flexible Prime-Field Genus 2 Hyperelliptic Curve Cryptography Processor with Low Power Consumption and Uniform Power Draw. ETRI Journal, 2015, 37, 107-117.	2.0	3
187	A Cross-Layer Framework for Designing and Optimizing Deeply-Scaled FinFET-Based Cache Memories. Journal of Low Power Electronics and Applications, 2015, 5, 165-182.	2.0	2
188	Event-Driven and Sensorless Photovoltaic System Reconfiguration for Electric Vehicles. , 2015, , .		4
189	A cross-layer framework for designing and optimizing deeply-scaled FinFET-based SRAM cells under process variations. , 2015, , .		6
190	Impact of technology and voltage scaling on LEON3 processor performance and energy. , 2015, , .		1
191	Machine learning-based energy management in a hybrid electric vehicle to minimize total operating cost., 2015,,.		29
192	Reconfigurable three dimensional photovoltaic panel architecture for solar-powered time extension. , 2015, , .		1
193	Analysis of deeply scaled multi-gate devices with design centering across multiple voltage regimes. , 2015, , .		1
194	A Comparative Study of the Effectiveness of CPU Consolidation Versus Dynamic Voltage and Frequency Scaling in a Virtualized Multicore Server. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2015, , 1-14.	3.1	2
195	Optimizing fuel economy of hybrid electric vehicles using a Markov decision process model., 2015,,.		4
196	Hierarchical Deployment and Control of Energy Storage Devices in Data Centers. , 2015, , .		1
197	Task Scheduling with Dynamic Voltage and Frequency Scaling for Energy Minimization in the Mobile Cloud Computing Environment. IEEE Transactions on Services Computing, 2015, 8, 175-186.	4.6	193
198	Performance Comparisons Between 7-nm FinFET and Conventional Bulk CMOS Standard Cell Libraries. IEEE Transactions on Circuits and Systems II: Express Briefs, 2015, 62, 761-765.	3.0	54

#	Article	IF	Citations
199	An efficient network on-chip architecture based on isolating local and non-local communications. Computers and Electrical Engineering, 2015, 45, 430-444.	4.8	8
200	Optimizing a Reconfigurable Power Distribution Network in a Multicore Platform. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2015, 34, 1110-1123.	2.7	21
201	Optimal control of PEVs for energy cost minimization and frequency regulation in the smart grid accounting for battery state-of-health degradation. , $2015,  ,  .$		14
202	Workload and temperature dependent evaluation of BTI-induced lifetime degradation in digital circuits. Microelectronics Reliability, 2015, 55, 1152-1162.	1.7	5
203	Power punch: Towards non-blocking power-gating of NoC routers. , 2015, , .		76
204	High-performance and high-yield 5 nm underlapped FinFET SRAM design using P-type access transistors. , 2015, , .		2
205	Design optimization of sense amplifiers using deeply-scaled FinFET devices. , 2015, , .		2
206	A near-threshold 7T SRAM cell with high write and read margins and low write time for sub-20 nm FinFET technologies. The Integration VLSI Journal, 2015, 50, 91-106.	2.1	56
207	Negotiation-based task scheduling and storage control algorithm to minimize user's electric bills under dynamic prices. , 2015, , .		9
208	Reinforcement learning-based control of residential energy storage systems for electric bill minimization. , 2015, , .		17
209	Design and optimization of a reconfigurable power delivery network for large-area, DVS-enabled OLED displays. , 2015, , .		2
210	Optimal choice of FinFET devices for energy minimization in deeply-scaled technologies. , 2015, , .		2
211	Joint automatic control of the powertrain and auxiliary systems to enhance the electromobility in hybrid electric vehicles., 2015,,.		4
212	A Joint Optimization Framework for Request Scheduling and Energy Storage Management in a Data Center. , $2015$ , , .		3
213	Layout Characterization and Power Density Analysis for Shorted-Gate and Independent-Gate 7nm FinFET Standard Cells., 2015, , .		5
214	Analyzing the Dark Silicon Phenomenon in a Many-Core Chip Multi-Processor under Deeply-Scaled Process Technologies. , 2015, , .		5
215	OPLE. Transactions on Embedded Computing Systems, 2015, 14, 1-23.	2.9	72
216	ThermTap: An online power analyzer and thermal simulator for Android devices., 2015,,.		11

#	Article	IF	Citations
217	Design of NBTI-resilient extensible processors. The Integration VLSI Journal, 2015, 49, 22-34.	2.1	3
218	CSAM: A clock skew-aware aging mitigation technique. Microelectronics Reliability, 2015, 55, 282-290.	1.7	4
219	Leakage Power Reduction for Deeply-Scaled FinFET Circuits Operating in Multiple Voltage Regimes Using Fine-Grained Gate-Length Biasing Technique. , 2015, , .		8
220	TAPP: Temperature-Aware Application Mapping for NoC-Based Many-Core Processors. , 2015, , .		33
221	Power supply and consumption co-optimization of portable embedded systems with hybrid power supply. , 2014, , .		2
222	Distributed load demand scheduling in smart grid to minimize electricity generation cost., 2014,,.		1
223	Optimal switch configuration design for reconfigurable photovoltaic modules. , 2014, , .		0
224	Minimizing state-of-health degradation in hybrid electrical energy storage systems with arbitrary source and load profiles. , $2014, \ldots$		2
225	Improving efficiency of extensible processors by using approximate custom instructions. , 2014, , .		3
226	Optimal design and management of a smart residential PV and energy storage system., 2014,,.		3
227	Concurrent placement, capacity provisioning, and request flow control for a distributed cloud infrastructure. , 2014, , .		0
228	Energy and Performance-Aware Task Scheduling in a Mobile Cloud Computing Environment. , 2014, , .		24
229	Therminator., 2014,,.		55
230	7nm FinFET standard cell layout characterization and power density prediction in near- and super-threshold voltage regimes. , 2014, , .		20
231	An optimization framework for data centers to minimize electric bill under day-ahead dynamic energy prices while providing regulation services. , 2014, , .		12
232	Performance prediction for multiple-threshold 7nm-FinFET-based circuits operating in multiple voltage regimes using a cross-layer simulation framework. , 2014, , .		17
233	Model-free learning-based online management of hybrid electrical energy storage systems in electric vehicles. , 2014, , .		12
234	Cost-effective design of a hybrid electrical energy storage system for electric vehicles. , 2014, , .		4

#	Article	IF	CITATIONS
235	Squash., 2014,,.		8
236	An electricity trade model for multiple power distribution networks in smart energy systems. , 2014, , .		2
237	Power-Aware Deployment and Control of Forced-Convection and Thermoelectric Coolers. , 2014, , .		5
238	Smart butterfly., 2014,,.		7
239	Cofactor Sharing for Reversible Logic Synthesis. ACM Journal on Emerging Technologies in Computing Systems, 2014, 11, 1-21.	2.3	3
240	Negotiation-based task scheduling to minimize user's electricity bills under dynamic energy prices. , 2014, , .		6
241	State-of-health aware optimal control of plug-in electric vehicles. , 2014, , .		2
242	Fast photovoltaic array reconfiguration for partial solar powered vehicles., 2014,,.		22
243	Optimal power switch design methodology for ultra dynamic voltage scaling with a limited number of power rails. , 2014, , .		0
244	Semi-analytical current source modeling of FinFET devices operating in near/sub-threshold regime with independent gate control and considering process variation. , $2014, \ldots$		6
245	A Stackelberg Game-Based Optimization Framework of the Smart Grid With Distributed PV Power Generations and Data Centers. IEEE Transactions on Energy Conversion, 2014, 29, 978-987.	5.2	51
246	Prediction and control of bursty cloud workloads. , 2014, , .		26
247	Online fault detection and fault tolerance in electrical energy storage systems. , 2014, , .		3
248	VRCon: Dynamic reconfiguration of voltage regulators in a multicore platform. , 2014, , .		1
249	Application mapping for express channel-based networks-on-chip. , 2014, , .		3
250	FEPMA: Fine-grained event-driven power meter for android smartphones based on device driver layer event monitoring. , $2014$ , , .		3
251	Energy optimal sizing of FinFET standard cells operating in multiple voltage regimes using adaptive independent gate control. , 2014, , .		0
252	A cross-layer design framework and comparative analysis of SRAM cells and cache memories using 7nm FinFET devices. , $2014, \dots$		0

#	Article	IF	CITATIONS
253	Variation-aware joint optimization of the supply voltage and sleep transistor size for the 7nm FinFET technology. , $2014$ , , .		0
254	Resource allocation optimization in a data center with energy storage devices. , 2014, , .		5
255	Low write-energy STT-MRAMs using FinFET-based access transistors. , 2014, , .		15
256	Dynamic thermal management for FinFET-based circuits exploiting the temperature effect inversion phenomenon. , $2014, \ldots$		40
257	Reinforcement learning based power management for hybrid electric vehicles. , 2014, , .		45
258	Optimal offloading control for a mobile device based on a realistic battery model and semi-Markov decision process. , 2014, , .		6
259	Design of a universal logic block for fault-tolerant realization of any logic operation in trapped-ion quantum circuits. Quantum Information Processing, 2014, 13, 1267-1299.	2.2	13
260	An energy-aware fault tolerant scheduling framework for soft error resilient cloud computing systems. , 2014, , .		5
261	Concurrent placement, capacity provisioning, and request flow control for a distributed cloud infrastructure., 2014,,.		1
262	An improved logical effort model and framework applied to optimal sizing of circuits operating in multiple supply voltage regimes. , 2014, , .		9
263	Stack sizing analysis and optimization for FinFET logic cells and circuits operating in the sub/near-threshold regime. , $2014, \ldots$		13
264	Reinforcement learning algorithms for dynamic power management. , 2014, , .		2
265	Designing the Optimal Pricing Policy for Aggregators in the Smart Grid., 2014, , .		1
266	5 nm FinFET Standard Cell Library Optimization and Circuit Synthesis in Near-and Super-Threshold Voltage Regimes. , 2014, , .		21
267	Trace-Based Analysis and Prediction of Cloud Computing User Behavior Using the Fractal Modeling Technique. , 2014, , .		15
268	Balancing On-Chip Network Latency in Multi-application Mapping for Chip-Multiprocessors. , 2014, , .		4
269	A Probability Theory Based Price Determination Framework for Utility Companies in an Oligopolistic Energy Market. , 2014, , .		0
270	An efficient semi-analytical current source model for FinFET devices in near/sub-threshold regime considering multiple input switching and stack effect. , $2014$ , , .		3

#	Article	IF	Citations
271	FinCACTI: Architectural Analysis and Modeling of Caches with Deeply-Scaled FinFET Devices. , 2014, , .		45
272	Optimizing the Power Delivery Network in a Smartphone Platform. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2014, 33, 36-49.	2.7	19
273	An energy-aware fault tolerant scheduling framework for soft error resilient cloud computing systems. , 2014, , .		3
274	An electricity trade model for microgrid communities in smart grid., 2014,,.		18
275	Designing Fault-Tolerant Photovoltaic Systems. IEEE Design and Test, 2014, 31, 76-84.	1.2	28
276	Single-Source, Single-Destination Charge Migration in Hybrid Electrical Energy Storage Systems. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2014, 22, 2752-2765.	3.1	8
277	A Game Theoretic Framework of SLA-based Resource Allocation for Competitive Cloud Service Providers. , 2014, , .		16
278	Principles and Efficient Implementation of Charge Replacement in Hybrid Electrical Energy Storage Systems. IEEE Transactions on Power Electronics, 2014, 29, 6110-6123.	7.9	12
279	Qubit placement to minimize communication overhead in 2D quantum architectures., 2014,,.		78
280	Adaptive Control for Energy Storage Systems in Households With Photovoltaic Modules. IEEE Transactions on Smart Grid, 2014, 5, 992-1001.	9.0	120
281	Architecture and Control Algorithms for Combating Partial Shading in Photovoltaic Systems. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2014, 33, 917-930.	2.7	47
282	Impact of Process Variations on Speedup and Maximum Achievable Frequency of Extensible Processors. ACM Journal on Emerging Technologies in Computing Systems, 2014, 10, 1-25.	2.3	1
283	Coordination of the smart grid and distributed data centers: A nested game-based optimization framework. , 2014, , .		7
284	Designing soft-edge flip-flop-based linear pipelines operating in multiple supply voltage regimes. The Integration VLSI Journal, 2014, 47, 318-328.	2.1	2
285	A scalable and flexible hybrid energy storage system design and implementation. Journal of Power Sources, 2014, 255, 410-422.	7.8	52
286	Implementation-aware selection of the custom instruction set for extensible processors. Microprocessors and Microsystems, 2014, 38, 681-691.	2.8	1
287	Single-Bit Pseudoparallel Processing Low-Oversampling Delta–Sigma Modulator Suitable for SDR Wireless Transmitters. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2014, 22, 922-931.	3.1	19
288	VRCon: Dynamic reconfiguration of voltage regulators in a multicore platform. , 2014, , .		4

#	Article	lF	Citations
289	Minimizing state-of-health degradation in hybrid electrical energy storage systems with arbitrary source and load profiles. , $2014, \ldots$		5
290	Improving efficiency of extensible processors by using approximate custom instructions. , 2014, , .		1
291	Charge Allocation in Hybrid Electrical Energy Storage Systems. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2013, 32, 1003-1016.	2.7	49
292	Considering the effect of process variations during the ISA extension design flow. Microprocessors and Microsystems, 2013, 37, 713-724.	2.8	2
293	Optimal Control of a Grid-Connected Hybrid Electrical Energy Storage System for Homes., 2013,,.		20
294	Service Level Agreement-Based Joint Application Environment Assignment and Resource Allocation in Cloud Computing Systems. , $2013, \dots$		8
295	An optimal control policy in a mobile cloud computing system based on stochastic data., 2013,,.		4
296	A new merit function for custom instruction selection under an area budget constraint. Design Automation for Embedded Systems, 2013, 17, 1-25.	1.0	1
297	Dynamic Driver Supply Voltage Scaling for Organic Light Emitting Diode Displays. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2013, 32, 1017-1030.	2.7	30
298	Hierarchical dynamic power management using model-free reinforcement learning., 2013,,.		5
299	Reversible Logic Synthesis of k-Input, m-Output Lookup Tables. , 2013, , .		5
300	A nested game-based optimization framework for electricity retailers in the smart grid with residential users and PEVs. , 2013, , .		2
301	Adaptive Thermal Management for Portable System Batteries by Forced Convection Cooling., 2013,,.		9
302	Hierarchical Virtual Machine Consolidation in a Cloud Computing System., 2013,,.		16
303	Capturing and mitigating the NBTI effect during the design flow for extensible processors. , 2013, , .		1
304	Resource allocation and consolidation in a multi-core server cluster using a Markov decision process model. , 2013, , .		12
305	Geographical Load Balancing for Online Service Applications in Distributed Datacenters. , 2013, , .		26
306	Reinforcement Learning-Based Dynamic Power Management of a Battery-Powered System Supplying Multiple Active Modes. , 2013, , .		7

#	Article	IF	CITATIONS
307	Online estimation of the remaining energy capacity in mobile systems considering system-wide power consumption and battery characteristics. , 2013, , .		5
308	Platform-dependent, leakage-aware control of the driving current of embedded thermoelectric coolers. , $2013,  \ldots$		8
309	Semi-analytical current source modeling of near-threshold operating logic cells considering process variations. , 2013, , .		4
310	Design and Multicorner Optimization of the Energy-Delay Product of CMOS Flip–Flops Under the Negative Bias Temperature Instability Effect. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2013, 32, 869-881.	2.7	11
311	Dynamic thermal management in mobile devices considering the thermal coupling between battery and application processor., 2013,,.		41
312	Capital Cost-Aware Design and Partial Shading-Aware Architecture Optimization of a Reconfigurable Photovoltaic System. , 2013, , .		8
313	Joint sizing and adaptive independent gate control for FinFET circuits operating in multiple voltage regimes using the logical effort method. , 2013, , .		21
314	NFRA: Generalized Network Flow-Based Resource Allocation for Hosting Centers. IEEE Transactions on Computers, 2013, 62, 1772-1785.	3.4	3
315	Dual-mode power regulator for photovoltaic module emulation. Applied Energy, 2013, 101, 730-739.	10.1	29
316	A sequential game perspective and optimization of the smart grid with distributed data centers. , 2013, , .		1
317	A game-theoretic price determination algorithm for utility companies serving a community in smart grid. , 2013, , .		5
318	Maximum power transfer tracking in a solar USB charger for smartphones. , 2013, , .		8
319	Accurate Component Model Based Optimal Control for Energy Storage Systems in Households with Photovoltaic Modules., 2013,,.		8
320	SIMES: A simulator for hybrid electrical energy storage systems. , 2013, , .		8
321	An energy and deadline aware resource provisioning, scheduling and optimization framework for cloud systems. , 2013, , .		57
322	A semi-Markovian decision process based control method for offloading tasks from mobile devices to the cloud. , $2013,  \ldots$		11
323	A framework of concurrent task scheduling and dynamic voltage and frequency scaling in real-time embedded systems with energy harvesting. , 2013, , .		13
324	A Nested Two Stage Game-Based Optimization Framework in Mobile Cloud Computing System., 2013,,.		21

#	Article	lF	CITATIONS
325	Force-directed geographical load balancing and scheduling for batch jobs in distributed datacenters. , $2013,  \ldots$		7
326	Statistical Functional Yield Estimation and Enhancement of CNFET-Based VLSI Circuits. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2013, 21, 887-900.	3.1	9
327	Optimization of quantum circuits for interaction distance in linear nearest neighbor architectures. , 2013, , .		82
328	Variability-aware design of energy-delay optimal linear pipelines operating in the near-threshold regime and above. , $2013$ , , .		2
329	Designing a residential hybrid electrical energy storage system based on the energy buffering strategy. , 2013, , .		8
330	Linear-depth quantum circuits for <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"> <mml:mi> </mml:mi> </mml:math> -qubit Toffoli gates with no ancilla. Physical Review A, 2013, 87, .	2.5	37
331	An efficient scheduling algorithm for multiple charge migration tasks in hybrid electrical energy storage systems. , 2013, , .		6
332	Maximizing return on investment of a grid-connected hybrid electrical energy storage system., 2013,,.		13
333	Computer-Aided Design and Optimization of Hybrid Energy Storage Systems. Foundations and Trends in Electronic Design Automation, 2013, 7, 247-338.	1.0	3
334	Constant-Factor Optimization of Quantum Adders on 2D Quantum Architectures. Lecture Notes in Computer Science, 2013, , 58-69.	1.3	4
335	Dynamic Power Management of a Computer with Self Power-Managed Components. Lecture Notes in Computer Science, 2013, , 215-224.	1.3	3
336	Analytical Modeling of Read Margin Probability Distribution Function of Static Random Access Memory Cells in Presence of Process Variations and Negative Bias Temperature Instability Effect. Japanese Journal of Applied Physics, 2012, 51, 114301.	1.5	1
337	Networked architecture for hybrid electrical energy storage systems. , 2012, , .		17
338	Online fault detection and tolerance for photovoltaic energy harvesting systems. , 2012, , .		20
339	Dynamic reconfiguration of photovoltaic energy harvesting system in hybrid electric vehicles. , 2012, , .		10
340	A study of the effectiveness of CPU consolidation in a virtualized multi-core server system. , 2012, , .		22
341	Battery cell configuration for organic light emitting diode display in modern smartphones and tablet-PCs. , 2012, , .		1
342	Concurrent optimization of consumer's electrical energy bill and producer's power generation cost under a dynamic pricing model. , 2012, , .		14

#	Article	IF	CITATIONS
343	Portfolio Theory-Based Resource Assignment in a Cloud Computing System. , 2012, , .		13
344	Statistical estimation of leakage power dissipation in nano-scale complementary metal oxide semiconductor digital circuits using generalised extreme value distribution. IET Circuits, Devices and Systems, 2012, 6, 273.	1.4	7
345	Power conversion efficiency characterization and optimization for smartphones. , 2012, , .		20
346	Minimizing the latency of quantum circuits during mapping to the ion-trap circuit fabric. , 2012, , .		14
347	SLA-based Optimization of Power and Migration Cost in Cloud Computing. , 2012, , .		124
348	An efficient reliability simulation flow for evaluating the hot carrier injection effect in CMOS VLSI circuits. , $2012$ , , .		10
349	Enhancing efficiency and robustness of a photovoltaic power system under partial shading., 2012,,.		25
350	Robust optimization of a Chip Multiprocessor's performance under power and thermal constraints. , 2012, , .		10
351	Profit maximization for utility companies in an oligopolistic energy market with dynamic prices. , 2012, , .		8
352	Reinforcement learning based dynamic power management with a hybrid power supply. , 2012, , .		17
353	Near-optimal, dynamic module reconfiguration in a photovoltaic system to combat partial shading effects. , $2012,  \ldots$		33
354	Charge replacement in hybrid electrical energy storage systems. , 2012, , .		10
355	A Hierarchical Control Algorithm for Managing Electrical Energy Storage Systems in Homes Equipped with PV Power Generation. , 2012, , .		19
356	Design of a Tri-Modal Multi-Threshold CMOS Switch With Application to Data Retentive Power Gating. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2012, 20, 380-385.	3.1	25
357	Energy-Efficient Virtual Machine Replication and Placement in a Cloud Computing System. , 2012, , .		101
358	Probability calculation of read failures in nano-scaled SRAM cells under process variations. Microelectronics Reliability, 2012, 52, 2805-2811.	1.7	11
359	Energy-Efficient Datacenters. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2012, 31, 1465-1484.	2.7	100
360	State of health aware charge management in hybrid electrical energy storage systems. , 2012, , .		4

#	Article	IF	Citations
361	Multiple-source and multiple-destination charge migration in hybrid electrical energy storage systems. , $2012, \ldots$		0
362	An accurate analytical I–V model for sub-90-nm MOSFETs and its application to read static noise margin modeling. Journal of Zhejiang University: Science C, 2012, 13, 58-70.	0.7	5
363	Constant-current regulator-based battery-supercapacitor hybrid architecture for high-rate pulsed load applications. Journal of Power Sources, 2012, 205, 516-524.	7.8	81
364	Analytical Modeling of Read Margin Probability Distribution Function of Static Random Access Memory Cells in Presence of Process Variations and Negative Bias Temperature Instability Effect. Japanese Journal of Applied Physics, 2012, 51, 114301.	1.5	1
365	Variation aware dynamic power management for chip multiprocessor architectures., 2011,,.		1
366	Multi-objective optimization techniques for VLSI circuits. , 2011, , .		30
367	Charge migration efficiency optimization in hybrid electrical energy storage (HEES) systems. , 2011, , .		40
368	Battery-supercapacitor hybrid system for high-rate pulsed load applications., 2011,,.		34
369	Demand-side load scheduling incentivized by dynamic energy prices. , 2011, , .		52
370	Multi-dimensional SLA-Based Resource Allocation for Multi-tier Cloud Computing Systems. , 2011, , .		148
371	Balanced reconfiguration of storage banks in a hybrid electrical energy storage system. , 2011, , .		44
372	Maximizing Profit in Cloud Computing System via Resource Allocation., 2011,,.		59
373	Timing variation-aware custom instruction extension technique. , 2011, , .		6
374	Accurate Timing and Noise Analysis of Combinational and Sequential Logic Cells Using Current Source Modeling. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2011, 19, 92-103.	3.1	12
375	Statistical Design Optimization of FinFET SRAM Using Back-Gate Voltage. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2011, 19, 1911-1916.	3.1	25
376	Versatile high-fidelity photovoltaic module emulation system. , 2011, , .		22
377	Optimizing the Power-Delay Product of a Linear Pipeline by Opportunistic Time Borrowing. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2011, 30, 1493-1506.	2.7	7
378	Deriving a near-optimal power management policy using model-free reinforcement learning and Bayesian classification. , $2011, \ldots$		49

#	Article	IF	CITATIONS
379	Robust design of power-efficient VLSI circuits. , 2011, , .		1
380	Post sign-off leakage power optimization. , 2011, , .		5
381	Charge allocation for hybrid electrical energy storage systems. , 2011, , .		20
382	Dynamic voltage scaling of OLED displays. , 2011, , .		74
383	Probabilistic Error Propagation in a Logic Circuit Using the Boolean Difference Calculus. , 2011, , 359-381.		34
384	A power-optimized low-energy elliptic-curve crypto-processor. IEICE Electronics Express, 2010, 7, 1752-1759.	0.8	3
385	Temperature-aware dynamic resource provisioning in a power-optimized datacenter. , 2010, , .		55
386	Efficient representation, stratification, and compression of variational CSM library waveforms using Robust Principle Component Analysis. , 2010, , .		3
387	Optimizing the power delivery network in dynamically voltage scaled systems with uncertain power mode transition times. , $2010$ , , .		3
388	Analysis and optimization of sequential circuit element to combat single-event timing upsets. , 2010, , .		0
389	Minimizing energy consumption of a chip multiprocessor through simultaneous core consolidation and DVFS., 2010,,.		11
390	Accurate modeling and calculation of delay and energy overheads of dynamic voltage scaling in modern high-performance microprocessors. , $2010,  ,  .$		76
391	Hybrid electrical energy storage systems. , 2010, , .		99
392	Supervised Learning Based Power Management for Multicore Processors. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2010, 29, 1395-1408.	2.7	100
393	Minimizing the Electricity Bill of Cooperative Users under a Quasi-Dynamic Pricing Model. , 2010, , .		45
394	Power and Performance Modeling in a Virtualized Server System., 2010,,.		52
395	Maximum power transfer tracking for a photovoltaic-supercapacitor energy system. , 2010, , .		70
396	Multi-corner, energy-delay optimized, NBTI-aware flip-flop design. , 2010, , .		11

#	Article	IF	CITATIONS
397	Minimizing the power consumption of a Chip Multiprocessor under an average throughput constraint. , $2010,  ,  .$		23
398	A High-Efficiency, Auto Mode-Hop, Variable-Voltage, Ripple Control Buck Converter. Journal of Power Electronics, 2010, 10, 115-124.	1.5	3
399	A Markovian Decision-Based Approach for Extending the Lifetime of a Network of Battery-Powered Mobile Devices by Remote Processing. Journal of Low Power Electronics, 2010, 6, 227-239.	0.6	2
400	Durability of Wireless Networks of Battery-Powered Devices. , 2009, , .		1
401	Efficient compression and handling of current source model library waveforms. , 2009, , .		5
402	Minimizing data center cooling and server power costs. , 2009, , .		149
403	Design and application of multimodal power gating structures. , 2009, , .		26
404	Uncertainty-Aware Dynamic Power Management in Partially Observable Domains. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2009, 17, 929-942.	3.1	4
405	BZ-FAD: A Low-Power Low-Area Multiplier Based on Shift-and-Add Architecture. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2009, 17, 302-306.	3.1	34
406	Predictive-Flow-Queue-Based Energy Optimization for Gigabit Ethernet Controllers. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2009, 17, 1113-1126.	3.1	9
407	Deterministic clock gating to eliminate wasteful activity due to wrong-path instructions in out-of-order superscalar processors. , 2009, , .		3
408	Whiteâ€LED backlight control for motionâ€blur reduction and power minimization in large LCD TVs. Journal of the Society for Information Display, 2009, 17, 37-45.	2.1	14
409	Low-Power Fanout Optimization Using Multi Threshold Voltages and Multi Channel Lengths. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2009, 28, 478-489.	2.7	3
410	Optimal Design of the Power-Delivery Network for Multiple Voltage-Island System-on-Chips. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2009, 28, 888-900.	2.7	40
411	Forecasting-Based Dynamic Virtual Channel Management for Power Reduction in Network-on-Chips. Journal of Low Power Electronics, 2009, 5, 385-395.	0.6	9
412	A Novel Synthetic Traffic Pattern for Power/Performance Analysis of Network-on-Chips Using Negative Exponential Distribution. Journal of Low Power Electronics, 2009, 5, 396-405.	0.6	47
413	Improving the Efficiency of Power Management Techniques by Using Bayesian Classification., 2008,,.		10
414	Probabilistic error propagation in logic circuits using the Boolean difference calculus., 2008,,.		58

#	Article	IF	Citations
415	Charge Recycling in Power-Gated CMOS Circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2008, 27, 1798-1811.	2.7	27
416	Symmetry Detection and Boolean Matching Utilizing a Signature-Based Canonical Form of Boolean Functions. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2008, 27, 1128-1137.	2.7	22
417	Leakage Minimization of SRAM Cells in a Dual-\$V_t\$ and Dual-\$T_{m ox}\$ Technology. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2008, 16, 851-860.	3.1	51
418	Heterogeneous modulation for trading-off energy balancing with bandwidth efficiency in hierarchical sensor networks. , 2008, , .		2
419	A stochastic local hot spot alerting technique. , 2008, , .		0
420	Crosstalk-affected delay analysis in nanometer technologies. International Journal of Electronics, 2008, 95, 903-937.	1.4	8
421	Coarse-Grain MTCMOS Sleep Transistor Sizing Using Delay Budgeting. , 2008, , .		12
422	Continuous Frequency Adjustment Technique Based on Dynamic Workload Prediction., 2008,,.		15
423	NBTI-aware flip-flop characterization and design. , 2008, , .		29
424	A Current Source Model for CMOS Logic Cells Considering Multiple Input Switching and Stack Effect. , 2008, , .		8
425	GOP-Level Dynamic Thermal Management in MPEG-2 Decoding. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2008, 16, 662-672.	3.1	19
426	Resilient Dynamic Power Management under Uncertainty. , 2008, , .		2
427	Modulation-aware energy balancing in hierarchical wireless sensor networks. , 2008, , .		10
428	Minimizing the energy cost of throughput in a linear pipeline by opportunistic time borrowing. , 2008, , .		3
429	Stochastic modeling of a thermally-managed multi-core system. , 2008, , .		36
430	A mathematical solution to power optimal pipeline design by utilizing soft edge flip-flops., 2008,,.		7
431	Resilient dynamic power management under uncertainty. , 2008, , .		6
432	Statistical timing analysis of flip-flops considering codependent setup and hold times., 2008,,.		16

#	Article	IF	CITATIONS
433	Characterization and design of sequential circuit elements to combat soft error., 2008,,.		3
434	Energy-Aware Task Scheduling and Dynamic Voltage Scaling in a Real-Time System. Journal of Low Power Electronics, 2008, 4, 1-10.	0.6	39
435	A Unified Framework for System-Level Design: Modeling and Performance Optimization of Scalable Networking Systems. , 2007, , .		2
436	Sleep transistor distribution in row-based MTCMOS designs. , 2007, , .		6
437	Introduction to special issue on demonstrable software systems and hardware platforms. ACM Transactions on Design Automation of Electronic Systems, 2007, 12, 1-3.	2.6	1
438	Power optimal MTCMOS repeater insertion for global buses., 2007,,.		5
439	Active bank switching for temperature control of the register file in a microprocessor. , 2007, , .		20
440	Optimal selection of voltage regulator modules in a power delivery network. Proceedings - Design Automation Conference, 2007, , .	0.0	11
441	Minimizing power dissipation during write operation to register files., 2007,,.		1
442	Dynamic Power Management under Uncertain Information. , 2007, , .		14
443	A Current-based Method for Short Circuit Power Calculation under Noisy Input Waveforms. , 2007, , .		13
444	Parameterized Non-Gaussian Variational Gate Timing Analysis. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2007, 26, 1495-1508.	2.7	2
445	A Synthesis Approach for Coarse-Grained Antifuse-Based FPGAs. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2007, 26, 1564-1575.	2.7	3
446	Fast INC-XOR codec for low-power address buses. IET Computers and Digital Techniques, 2007, 1, 625.	1.2	2
447	Architectures for silicon nanoelectronics and beyond. Computer, 2007, 40, 25-33.	1.1	74
448	Flow-Through-Queue based Power Management for Gigabit Ethernet Controller., 2007,,.		0
449	Lifetime-Aware Hierarchical Wireless Sensor Network Architecture with Mobile Overlays. , 2007, , .		9
450	Sizing and placement of charge recycling transistors in MTCMOS circuits. IEEE/ACM International Conference on Computer-Aided Design, Digest of Technical Papers, 2007, , .	0.0	1

#	Article	IF	Citations
451	Design of an efficient power delivery network in an soc to enable dynamic power management. , 2007, , .		17
452	A Robust Power Gating Structure and Power Mode Transition Strategy for MTCMOS Design. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2007, 15, 80-89.	3.1	46
453	Precomputation-Based Guarding and a Robust Power Gating Strategy in Deep Sub-Micron CMOS. Journal of Nanoelectronics and Optoelectronics, 2007, 2, 171-190.	0.5	0
454	Fast Interconnect and Gate Timing Analysis for Performance Optimization. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2006, 14, 1383-1388.	3.1	3
455	Stochastic Dynamic Thermal Management: A Markovian Decision-based Approach. Proceedings - IEEE International Conference on Computer Design: VLSI in Computers and Processors, 2006, , .	0.0	11
456	Cycle-Based Decomposition of Markov Chains With Applications to Low-Power Synthesis and Sequence Compaction for Finite State Machines. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2006, 25, 2712-2725.	2.7	1
457	An analytical model for predicting the remaining battery capacity of lithium-ion batteries. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2006, 14, 441-451.	3.1	237
458	Statistical logic cell delay analysis using a current-based model. , 2006, , .		40
459	Gain-based Cell Delay Modeling. , 2006, , .		0
460	Dynamic Thermal Management for MPEG-2 Decoding. , 2006, , .		0
461	Scaling Analysis of On-Chip Power Grid Voltage Variations in Nanometer Scale ULSI. Analog Integrated Circuits and Signal Processing, 2005, 42, 277-290.	1.4	27
462	A new canonical form for fast boolean matching in logic synthesis and verification. , 2005, , .		28
463	Clustering techniques for coarse-grained, antifuse FPGAs. , 2005, , .		2
464	An effective power mode transition technique in MTCMOS circuits., 2005,,.		19
465	Frame-Based Dynamic Voltage and Frequency Scaling for an MPEG Player. Journal of Low Power Electronics, 2005, 1, 27-43.	0.6	13
466	Energy-Aware MPEG-4 FGS Streaming. Journal of Low Power Electronics, 2005, 1, 44-51.	0.6	1
467	A Leakage-Aware Low Power Technology Mapping Algorithm Considering the Hot-Carrier Effect. Journal of Low Power Electronics, 2005, 1, 133-144.	0.6	0
468	Off-chip latency-driven dynamic voltage and frequency scaling for an MPEG decoding., 2004,,.		31

#	Article	IF	Citations
469	Dynamic voltage and frequency scaling based on workload decomposition. , 2004, , .		99
470	Leakage current reduction in CMOS VLSI circuits by input vector control. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2004, 12, 140-154.	3.1	220
471	Ground bounce in digital VLSI circuits. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2003, 11, 180-193.	3.1	85
472	Power Simulation and Estimation in VLSI Circuits. , 2003, , 11-1-11-27.		0
473	A CLASS OF IRREDUNDANT ENCODING TECHNIQUES FOR REDUCING BUS POWER. Journal of Circuits, Systems and Computers, 2002, 11, 445-457.	1.5	6
474	POWER-AWARE BUS ENCODING TECHNIQUES FOR I/O AND DATA BUSES IN AN EMBEDDED SYSTEM. Journal of Circuits, Systems and Computers, 2002, 11, 351-363.	1.5	4
475	Power-optimal encoding for a DRAM address bus. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2002, 10, 109-118.	3.1	16
476	Power-aware source routing protocol for mobile ad hoc networks. , 2002, , .		112
477	Low-power sequential circuit design using T flip-flops. International Journal of Electronics, 2001, 88, 635-643.	1.4	10
478	Analysis of non-uniform temperature-dependent interconnect performance in high performance ICs. , 2001, , .		39
479	Low power techniques for address encoding and memory allocation. , 2001, , .		9
480	Stochastic sequential machine synthesis with application to constrained sequence generation. ACM Transactions on Design Automation of Electronic Systems, 2000, 5, 658-681.	2.6	4
481	Low power sequential circuit design by using priority encoding and clock gating. , 2000, , .		12
482	Timing-driven placement based on partitioning with dynamic cut-net control. , 2000, , .		53
483	Power-optimal encoding for DRAM address bus (poster session). , 2000, , .		17
484	Dynamic power management of complex systems using generalized stochastic Petri nets., 2000,,.		66
485	Dynamic power management based on continuous-time Markov decision processes., 1999,,.		118
486	Bounded algebra and current-mode digital circuits. Journal of Computer Science and Technology, 1999, 14, 551-557.	1.5	2

#	Article	IF	CITATIONS
487	A synthesis methodology for ECL circuits based on mixed voltage-current representation. Journal of Electronics, 1999, 16, 359-366.	0.2	1
488	Accurate and efficient power simulation strategy by compacting the input vector set. The Integration VLSI Journal, 1998, 25, 37-52.	2.1	0
489	Cycle-accurate macro-models for RT-level power analysis. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 1998, 6, 520-528.	3.1	45
490	Composite sequence compaction for finite-state machines using block entropy and high-order Markov models., 1997,,.		11
491	Energy minimization using multiple supply voltages. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 1997, 5, 436-443.	3.1	233
492	Combining Technology Mapping With Layout. VLSI Design, 1997, 5, 111-124.	0.5	5
493	Constructing minimal spanning/Steiner trees with bounded path length. The Integration VLSI Journal, 1997, 22, 137-163.	2.1	12
494	Power Optimization in VLSI Layout: A Survey. Journal of Signal Processing Systems, 1997, 15, 221-232.	1.0	9
495	Factored Edge-Valued Binary Decision Diagrams. Formal Methods in System Design, 1997, 10, 243-270.	0.8	18
496	Advanced Power Estimation Techniques. , 1997, , 179-201.		3
497	Formal verification using edge-valued binary decision diagrams. IEEE Transactions on Computers, 1996, 45, 247-255.	3.4	18
498	Power minimization in IC design. ACM Transactions on Design Automation of Electronic Systems, 1996, 1, 3-56.	2.6	394
499	Stochastic sequential machine synthesis targeting constrained sequence generation. , 1996, , .		17
500	POSE., 1996,,.		26
501	Efficient power estimation for highly correlated input streams. , 1995, , .		63
502	Information theoretic measures of energy consumption at register transfer level. , 1995, , .		58
503	Logic extraction and factorization for low power. , 1995, , .		33
504	Power estimation methods for sequential logic circuits. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 1995, 3, 404-416.	3.1	100

#	Article	IF	CITATIONS
505	Register Allocation and Binding for Low Power. Proceedings - Design Automation Conference, 1995, , .	0.0	57
506	Technology mapping using fuzzy logic. , 1994, , .		1
507	POWER ESTIMATION AND OPTIMIZATION AT THE LOGIC LEVEL. International Journal of High Speed Electronics and Systems, 1994, 05, 179-202.	0.7	20
508	Exact and approximate methods for calculating signal and transition probabilities in FSMs. , $1994,$ , .		82
509	1994 international workshop on low power design. ACM SIGDA Newsletter, 1994, 24, 40-46.	0.0	0
510	BDD based decomposition of logic functions with application to FPGA synthesis. , 1993, , .		106
511	Routability-driven fanout optimization. , 1993, , .		38
512	Layout driven technology mapping. , 1991, , .		115
513	Power minimization in a backlit TFT-LCD display by concurrent brightness and contrast scaling. , 0, , .		22
514	Profit-Maximizing Resource Allocation for Multitier Cloud Computing Systems Under Service Level Agreements., 0,, 291-318.		1