# **Huazhong Yang**

#### List of Publications by Citations

Source: https://exaly.com/author-pdf/8340187/huazhong-yang-publications-by-citations.pdf

Version: 2024-04-20

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

248
papers
citations
25
h-index
g-index

329
ext. papers
ext. citations
25
h-index
25
h-index
L-index

#	Paper	IF	Citations
248	Going Deeper with Embedded FPGA Platform for Convolutional Neural Network <b>2016</b> ,		550
247	Angel-Eye: A Complete Design Flow for Mapping CNN Onto Embedded FPGA. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2018</b> , 37, 35-47	2.5	216
246	Accurate Temperature-Dependent Integrated Circuit Leakage Power Estimation is Easy <b>2007</b> ,		111
245	2017,		84
244	Technological Exploration of RRAM Crossbar Array for Matrix-Vector Multiplication. <i>Journal of Computer Science and Technology</i> , <b>2016</b> , 31, 3-19	1.7	78
243	Thermal vs Energy Optimization for DVFS-Enabled Processors in Embedded Systems 2007,		73
242	RRAM-Based Analog Approximate Computing. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2015</b> , 34, 1905-1917	2.5	69
241	Region ensemble network: Improving convolutional network for hand pose estimation 2017,		65
240	Storage-Less and Converter-Less Photovoltaic Energy Harvesting With Maximum Power Point Tracking for Internet of Things. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2016</b> , 35, 173-186	2.5	58
239	2018,		57
238	FPGP <b>2016</b> ,		53
237	ForeGraph <b>2017</b> ,		50
236	Stuck-at Fault Tolerance in RRAM Computing Systems. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , <b>2018</b> , 8, 102-115	5.2	46
235	2016,		43
234	A global and updatable ECG beat classification system based on recurrent neural networks and active learning. <i>Information Sciences</i> , <b>2019</b> , 501, 523-542	7.7	42
233	Storage-less and converter-less maximum power point tracking of photovoltaic cells for a nonvolatile microprocessor <b>2014</b> ,		40
232	A Deep Learning Approach for Blind Drift Calibration of Sensor Networks. <i>IEEE Sensors Journal</i> , <b>2017</b> , 17, 4158-4171	4	38

### (2018-2013)

231	NICSLU: An Adaptive Sparse Matrix Solver for Parallel Circuit Simulation. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2013</b> , 32, 261-274	2.5	37
230	GPU-Accelerated Sparse LU Factorization for Circuit Simulation with Performance Modeling. <i>IEEE Transactions on Parallel and Distributed Systems</i> , <b>2015</b> , 26, 786-795	3.7	34
229	PaCC: A Parallel Compare and Compress Codec for Area Reduction in Nonvolatile Processors. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2014</b> , 22, 1491-1505	2.6	33
228	GraphH: A Processing-in-Memory Architecture for Large-Scale Graph Processing. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2019</b> , 38, 640-653	2.5	33
227	TIME: A Training-in-Memory Architecture for RRAM-Based Deep Neural Networks. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2019</b> , 38, 834-847	2.5	32
226	Angel-Eye: A Complete Design Flow for Mapping CNN onto Customized Hardware 2016,		27
225	. IEEE Journal of Solid-State Circuits, <b>2017</b> , 52, 2194-2207	5.5	26
224	A Configurable Multi-Precision CNN Computing Framework Based on Single Bit RRAM <b>2019</b> ,		25
223	Solar Power Prediction Assisted Intra-task Scheduling for Nonvolatile Sensor Nodes. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2016</b> , 35, 724-737	2.5	24
222	An EScheduler-Based Data Dependence Analysis and Task Scheduling for Parallel Circuit Simulation. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2011</b> , 58, 702-706	3.5	24
221	A Ferroelectric Nonvolatile Processor with 46 \$mu \$ s System-Level Wake-up Time and 14 \$mu \$ s Sleep Time for Energy Harvesting Applications. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2017</b> , 64, 596-607	3.9	23
220	MSP-MFCC: Energy-Efficient MFCC Feature Extraction Method With Mixed-Signal Processing Architecture for Wearable Speech Recognition Applications. <i>IEEE Access</i> , <b>2020</b> , 8, 48720-48730	3.5	20
219	Hardware Trojan Detection in Third-Party Digital Intellectual Property Cores by Multilevel Feature Analysis. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2018</b> , 37, 1370-	1383	20
218	Spread spectrum audio watermarking based on perceptual characteristic aware extraction. <i>IET Signal Processing</i> , <b>2016</b> , 10, 266-273	1.7	20
217	An Investigation on Ground Electrodes of Capacitive Coupling Human Body Communication. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2017</b> , 11, 910-919	5.1	19
216	FPGA and GPU implementation of large scale SpMV <b>2010</b> ,		19
215	Computation-oriented fault-tolerance schemes for RRAM computing systems 2017,		17
214	A Tissue-Channel Transcutaneous Power Transfer Technique for Implantable Devices. <i>IEEE Transactions on Power Electronics</i> , <b>2018</b> , 33, 9753-9761	7.2	17

213	Modeling Random Telegraph Noise as a Randomness Source and its Application in True Random Number Generation. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2016</b> , 35, 1435-1448	2.5	17
212	Hu-Fu: Hardware and Software Collaborative Attack Framework Against Neural Networks 2018,		17
211	A 14 Bit 500 MS/s CMOS DAC Using Complementary Switched Current Sources and Time-Relaxed Interleaving DRRZ. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2014</b> , 61, 2337-2347	3.9	17
210	A 12-bit self-calibrating SAR ADC achieving a Nyquist 90.4-dB SFDR. <i>Analog Integrated Circuits and Signal Processing</i> , <b>2013</b> , 74, 239-254	1.2	17
209	Modeling the Impact of Process Variation on Critical Charge Distribution 2006,		17
208	Blind Drift Calibration of Sensor Networks Using Sparse Bayesian Learning. <i>IEEE Sensors Journal</i> , <b>2016</b> , 1-1	4	17
207	Long live TIME <b>2018</b> ,		17
206	An energy efficient backup scheme with low inrush current for nonvolatile SRAM in energy harvesting sensor nodes <b>2015</b> ,		16
205	A General Framework for Hardware Trojan Detection in Digital Circuits by Statistical Learning Algorithms. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2017</b> , 36, 1	633-16	46 <sup>15</sup>
204	Design of 2T/Cell and 3T/Cell Nonvolatile Memories with Emerging Ferroelectric FETs. <i>IEEE Design and Test</i> , <b>2019</b> , 36, 39-45	1.4	15
203	A Five-Tissue-Layer Human Body Communication Circuit Model Tunable to Individual Characteristics. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2018</b> , 12, 303-312	5.1	15
202	. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, <b>2020</b> , 39, 1414-1427	2.5	15
201	NS-CIM: A Current-Mode Computation-in-Memory Architecture Enabling Near-Sensor Processing for Intelligent IoT Vision Nodes. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2020</b> , 67, 2909-2922	3.9	14
200	Instruction driven cross-layer CNN accelerator with winograd transformation on FPGA 2017,		14
199	Large depth-of-field 3D shape measurement using an electrically tunable lens. <i>Optics Express</i> , <b>2019</b> , 27, 29697-29709	3.3	14
198	STICKER: An Energy-Efficient Multi-Sparsity Compatible Accelerator for Convolutional Neural Networks in 65-nm CMOS. <i>IEEE Journal of Solid-State Circuits</i> , <b>2020</b> , 55, 465-477	5.5	14
197	Exploring the Precision Limitation for RRAM-Based Analog Approximate Computing. <i>IEEE Design and Test</i> , <b>2016</b> , 33, 51-58	1.4	13
196	A Self-Adaptive Capacitive Compensation Technique for Body Channel Communication. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2017</b> , 11, 1001-1012	5.1	13

# (2020-2006)

195	An analytical phase noise model of charge pump mismatch in sigma-delta frequency synthesizer. Analog Integrated Circuits and Signal Processing, <b>2006</b> , 48, 223-229	1.2	13
194	MNSIM: Simulation Platform for Memristor-Based Neuromorphic Computing System. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2017</b> , 1-1	2.5	12
193	Performance analysis of data hiding in MPEG-4 AAC audio. <i>Tsinghua Science and Technology</i> , <b>2009</b> , 14, 55-61	3.4	12
192	High Speed Soft-Error-Tolerant Latch and Flip-Flop Design for Multiple VDD Circuit <b>2007</b> ,		12
191	Processing Near Sensor Architecture in Mixed-Signal Domain With CMOS Image Sensor of Convolutional-Kernel-Readout Method. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2020</b> , 67, 389-400	3.9	12
190	Lowering Area Overheads for FeFET-Based Energy-Efficient Nonvolatile Flip-Flops. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 2670-2674	2.9	11
189	Intra-task scheduling for storage-less and converter-less solar-powered nonvolatile sensor nodes <b>2014</b> ,		11
188	A Generic Graph-Based Neural Architecture Encoding Scheme for Predictor-Based NAS. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 189-204	0.9	11
187	Demystifying and Mitigating Code-Dependent Switching Distortions in Current-Steering DACs. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2019</b> , 66, 68-81	3.9	11
186	The Role and Challenges of Body Channel Communication in Wearable Flexible Electronics. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2020</b> , 14, 283-296	5.1	10
185	Design exploration of inrush current aware controller for nonvolatile processor 2015,		10
184	Application of DAPSK in HF communications. <i>IEEE Communications Letters</i> , <b>2005</b> , 9, 613-615	3.8	10
183	FTT-NAS: Discovering Fault-Tolerant Neural Architecture <b>2020</b> ,		9
182	A 3.77TOPS/W Convolutional Neural Network Processor With Priority-Driven Kernel Optimization. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2019</b> , 66, 277-281	3.5	9
181	FPGA based memory efficient high resolution stereo vision system for video tolling 2012,		9
180	Design methodology of variable latency adders with multistage function speculation <b>2010</b> ,		9
179	A New Family of Sequential Elements With Built-in Soft Error Tolerance for Dual-VDD Systems. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2008</b> , 16, 1372-1384	2.6	9
178	Autofocusing method for high-resolution three-dimensional profilometry. <i>Optics Letters</i> , <b>2020</b> , 45, 375	3	9

177	DSA: More Efficient Budgeted Pruning via Differentiable Sparsity Allocation. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 592-607	0.9	9
176	A Multi-accuracy-Level Approximate Memory Architecture Based on Data Significance Analysis <b>2016</b> ,		9
175	A 130-nm Ferroelectric Nonvolatile System-on-Chip With Direct Peripheral Restore Architecture for Transient Computing System. <i>IEEE Journal of Solid-State Circuits</i> , <b>2019</b> , 54, 885-895	5.5	9
174	PAGANI Toolkit: Parallel graph-theoretical analysis package for brain network big data. <i>Human Brain Mapping</i> , <b>2018</b> , 39, 1869-1885	5.9	8
173	A blind audio watermarking algorithm by logarithmic quantization index modulation. <i>Multimedia Tools and Applications</i> , <b>2014</b> , 71, 1157-1177	2.5	8
172	Design of Signal Constellations in the Presence of Phase Noise 2008,		8
171	Guided, Fusion-Based, Large Depth-of-field 3D Imaging Using a Focal Stack. <i>Sensors</i> , <b>2019</b> , 19,	3.8	8
170	Approximate Computing in Chrominance Cache for Image/Video Processing 2015,		7
169	2014,		7
168	A 65-nm ReRAM-Enabled Nonvolatile Processor With Time-Space Domain Adaption and Self-Write-Termination Achieving \$> 4times \$ Faster Clock Frequency and \$> 6times \$ Higher Restore Speed. <i>IEEE Journal of Solid-State Circuits</i> , <b>2017</b> , 52, 2769-2785	5.5	7
167	Drift detection and calibration of sensor networks <b>2015</b> ,		7
166	Exploration of Electrical and Novel Optical Chip-to-Chip Interconnects. <i>IEEE Design and Test</i> , <b>2014</b> , 31, 28-35	1.4	7
165	An adaptive LU factorization algorithm for parallel circuit simulation 2012,		7
164	A Sparse-Adaptive CNN Processor with Area/Performance balanced N-Way Set-Associate PE Arrays Assisted by a Collision-Aware Scheduler <b>2019</b> ,		7
163	2018,		7
162	NS-FDN: Near-Sensor Processing Architecture of Feature-Configurable Distributed Network for Beyond-Real-Time Always-on Keyword Spotting. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2021</b> , 1-14	3.9	7
161	All-Digital Galvanically-Coupled BCC Receiver Resilient to Frequency Misalignment. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2017</b> , 11, 714-726	5.1	6
160	A 14-bit 1.0-GS/s dynamic element matching DAC with >80 dB SFDR up to the Nyquist <b>2015</b> ,		6

159	Soft Error Mitigation for Deep Convolution Neural Network on FPGA Accelerators 2020,		6
158	CNN-based Feature-point Extraction for Real-time Visual SLAM on Embedded FPGA <b>2020</b> ,		6
157	Long Live TIME: Improving Lifetime and Security for NVM-Based Training-in-Memory Systems. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2020</b> , 39, 4707-4720	2.5	6
156	Lightweight Precision-Adaptive Time Synchronization in Wireless Sensor Networks. <i>IEICE Transactions on Communications</i> , <b>2010</b> , E93-B, 2299-2308	0.5	6
155	Low Voltage Low Power Class-AB OTA with Negative Resistance Load 2006,		6
154	Noise Margin Modeling for Zero- \$V_{text {GS}}\$ Load TFT Circuits and Yield Estimation. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 684-690	2.9	6
153	MACSen: A Processing-In-Sensor Architecture Integrating MAC Operations Into Image Sensor for Ultra-Low-Power BNN-Based Intelligent Visual Perception. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2021</b> , 68, 627-631	3.5	6
152	Noise Margin, Delay, and Power Model for Pseudo-CMOS TFT Logic Circuits. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 2635-2642	2.9	5
151	Dynamic Channel Modeling and OFDM System Analysis for Capacitive Coupling Body Channel Communication. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2019</b> , 13, 735-745	5.1	5
150	Efficient region-aware P/G TSV planning for 3D ICs <b>2014</b> ,		5
150 149	Efficient region-aware P/G TSV planning for 3D ICs <b>2014</b> ,  MDCT Sinusoidal Analysis for Audio Signals Analysis and Processing. <i>IEEE Transactions on Audio Speech and Language Processing</i> , <b>2013</b> , 21, 1403-1414		5
	MDCT Sinusoidal Analysis for Audio Signals Analysis and Processing. <i>IEEE Transactions on Audio</i>		
149	MDCT Sinusoidal Analysis for Audio Signals Analysis and Processing. <i>IEEE Transactions on Audio Speech and Language Processing</i> , <b>2013</b> , 21, 1403-1414		
149	MDCT Sinusoidal Analysis for Audio Signals Analysis and Processing. <i>IEEE Transactions on Audio Speech and Language Processing</i> , <b>2013</b> , 21, 1403-1414  CORAL: Coarse-grained reconfigurable architecture for Convolutional Neural Networks <b>2017</b> ,  AICNN: Implementing Typical CNN Algorithms with Analog-to-Information Conversion Architecture		5
149 148 147	MDCT Sinusoidal Analysis for Audio Signals Analysis and Processing. <i>IEEE Transactions on Audio Speech and Language Processing</i> , <b>2013</b> , 21, 1403-1414  CORAL: Coarse-grained reconfigurable architecture for Convolutional Neural Networks <b>2017</b> ,  AICNN: Implementing Typical CNN Algorithms with Analog-to-Information Conversion Architecture <b>2017</b> ,  Robust and transparent audio watermarking based on improved spread spectrum and		<ul><li>5</li><li>5</li><li>5</li></ul>
149 148 147 146	MDCT Sinusoidal Analysis for Audio Signals Analysis and Processing. <i>IEEE Transactions on Audio Speech and Language Processing</i> , <b>2013</b> , 21, 1403-1414  CORAL: Coarse-grained reconfigurable architecture for Convolutional Neural Networks <b>2017</b> ,  AICNN: Implementing Typical CNN Algorithms with Analog-to-Information Conversion Architecture <b>2017</b> ,  Robust and transparent audio watermarking based on improved spread spectrum and psychoacoustic masking <b>2012</b> ,		<ul><li>5</li><li>5</li><li>5</li><li>5</li></ul>
149 148 147 146	MDCT Sinusoidal Analysis for Audio Signals Analysis and Processing. <i>IEEE Transactions on Audio Speech and Language Processing</i> , <b>2013</b> , 21, 1403-1414  CORAL: Coarse-grained reconfigurable architecture for Convolutional Neural Networks <b>2017</b> ,  AICNN: Implementing Typical CNN Algorithms with Analog-to-Information Conversion Architecture <b>2017</b> ,  Robust and transparent audio watermarking based on improved spread spectrum and psychoacoustic masking <b>2012</b> ,  An energy efficient fully integrated OOK transceiver SoC for wireless body area networks <b>2013</b> ,	0.5	5 5 5 5

141	FeFET-based low-power bitwise logic-in-memory with direct write-back and data-adaptive dynamic sensing interface <b>2020</b> ,		5
140	Temperature-Aware NBTI Modeling Techniques in Digital Circuits. <i>IEICE Transactions on Electronics</i> , <b>2009</b> , E92-C, 875-886	0.4	5
139	Enabling Efficient and Flexible FPGA Virtualization for Deep Learning in the Cloud 2020,		5
138	CMOS Image Sensor Data-Readout Method for Convolutional Operations with Processing Near Sensor Architecture <b>2018</b> ,		5
137	HyVE: Hybrid Vertex-Edge Memory Hierarchy for Energy-Efficient Graph Processing. <i>IEEE Transactions on Computers</i> , <b>2019</b> , 68, 1131-1146	2.5	4
136	A 5-tissue-layer lumped-element based HBC circuit model compatible to IEEE802.15.6 <b>2015</b> ,		4
135	An Energy-Efficient Quantized and Regularized Training Framework For Processing-In-Memory Accelerators <b>2020</b> ,		4
134	HyVE: Hybrid vertex-edge memory hierarchy for energy-efficient graph processing 2018,		4
133	An Auto Loss Compensation System for Capacitive-Coupled Body Channel Communication. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2019</b> , 13, 756-765	5.1	4
132	GoHop: Personal VPN to defend from censorship <b>2014</b> ,		4
131	DVFS-Based Long-Term Task Scheduling for Dual-Channel Solar-Powered Sensor Nodes. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2017</b> , 25, 2981-2994	2.6	4
130	Statistical analysis of random telegraph noise in digital circuits <b>2014</b> ,		4
129	Hardware computing for brain network analysis 2010,		4
128	A novel low power time-mode comparator for successive approximation register ADC. <i>IEICE Electronics Express</i> , <b>2009</b> , 6, 1155-1160	0.5	4
127	Design of Circular Signal Constellations in the Presence of Phase Noise 2008,		4
126	Lifetime-Aware Battery Allocation for Wireless Sensor Network under Cost Constraints. <i>IEICE Transactions on Communications</i> , <b>2012</b> , E95.B, 1651-1660	0.5	4
125	Selective Host-Interference Cancellation: A New Informed Embedding Strategy for Spread Spectrum Watermarking. <i>IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences</i> , <b>2012</b> , E95.A, 1065-1073	0.4	4
124	Unsupervised Domain Adaptation for ECG Arrhythmia Classification. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2020</b> , 2020, 304-307	0.9	4

# (2020-2021)

123	Senputing: An Ultra-Low-Power Always-On Vision Perception Chip Featuring the Deep Fusion of Sensing and Computing. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2021</b> , 1-12	3.9	4
122	Enabling Lower-Power Charge-Domain Nonvolatile In-Memory Computing With Ferroelectric FETs. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2021</b> , 1-1	3.5	4
121	Scene-Adaptive Image Acquisition for Focus Stacking <b>2018</b> ,		4
120	Low-overhead implementation of logic encryption using gate replacement techniques 2017,		3
119	A 3T/Cell Practical Embedded Nonvolatile Memory Supporting Symmetric Read and Write Access Based on Ferroelectric FETs <b>2019</b> ,		3
118	Nonvolatile memory allocation and hierarchy optimization for high-level synthesis 2015,		3
117	Design of FPGA-Based Accelerator for Convolutional Neural Network under Heterogeneous Computing Framework with OpenCL. <i>International Journal of Reconfigurable Computing</i> , <b>2018</b> , 2018, 1-10	2.1	3
116	Blind drift calibration of sensor networks using signal space projection and Kalman filter 2015,		3
115	An FPGA-based real-time simultaneous localization and mapping system 2015,		3
114	A low-power robust GFSK demodulation technique for WBAN applications 2013,		3
113	Design of variable latency adder based on present and transitional states prediction 2013,		3
112	A hybrid cache architecture with 2D-based prefetching scheme for image and video processing <b>2013</b> ,		3
111	MDCT spectrum separation: Catching the fine spectral structures for stereo coding 2010,		3
110	A highly linear low-voltage source-degeneration transconductor based on unity-gain buffer. <i>Tsinghua Science and Technology</i> , <b>2009</b> , 14, 698-702	3.4	3
109	A power efficient digitally programmable delay element for low power VLSI applications 2009,		3
108	An Ultra Low Output Resistance and Wide Swing Voltage Follower 2007,		3
107	NS-KWS <b>2020</b> ,		3
106	Enabling Secure NVM-Based in-Memory Neural Network Computing by Sparse Fast Gradient Encryption. <i>IEEE Transactions on Computers</i> , <b>2020</b> , 69, 1596-1610	2.5	3

105	Almost-Nonvolatile IGZO-TFT-Based Near-Sensor In-Memory Computing 2021,		3
104	STICKER-T: An Energy-Efficient Neural Network Processor Using Block-Circulant Algorithm and Unified Frequency-Domain Acceleration. <i>IEEE Journal of Solid-State Circuits</i> , <b>2021</b> , 56, 1936-1948	5.5	3
103	2019,		3
102	. IEEE Sensors Journal, <b>2021</b> , 21, 1799-1808	4	3
101	Mixup Asymmetric Tri-Training for Heartbeat Classification Under Domain Shift. <i>IEEE Signal Processing Letters</i> , <b>2021</b> , 28, 718-722	3.2	3
100	A Bi-directional Integrated Equalizer Based on the Sepic-Zeta Converter for Hybrid Energy Storage System. <i>IEEE Transactions on Power Electronics</i> , <b>2022</b> , 1-1	7.2	3
99	STICKER-IM: A 65 nm Computing-in-Memory NN Processor Using Block-Wise Sparsity Optimization and Inter/Intra-Macro Data Reuse. <i>IEEE Journal of Solid-State Circuits</i> , <b>2022</b> , 1-14	5.5	3
98	Design Methodology for Thin-Film Transistor Based Pseudo-CMOS Logic Array with Multi-Layer Interconnect Architecture <b>2017</b> ,		2
97	Supply-Noise Interactions Among Submodules Inside a Charge-Pump PLL. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2015</b> , 23, 771-775	2.6	2
96	On-Chip Instruction Generation for Cross-Layer CNN Accelerator on FPGA <b>2019</b> ,		2
95	Design of RF transceivers for wireless sensor networks in hazardous applications. <i>Analog Integrated Circuits and Signal Processing</i> , <b>2014</b> , 79, 319-329	1.2	2
94	Hardware acceleration with pipelined adder for Support Vector Machine classifier 2014,		2
93	Design considerations for low power time-mode SAR ADC. <i>International Journal of Circuit Theory and Applications</i> , <b>2014</b> , 42, 707-730	2	2
92	A High-Linearity Energy-Efficient CMOS PA for Wireless Environment Monitoring 2013,		2
91	A 1.9 GHz ADPLL with 130 reference cycles settling time in 0.18 fb CMOS technology. <i>Analog Integrated Circuits and Signal Processing</i> , <b>2013</b> , 76, 81-89	1.2	2
90	Multistage Latency Adders Architecture Employing Approximate Computing. <i>Journal of Circuits, Systems and Computers</i> , <b>2017</b> , 26, 1750039	0.9	2
89	Probabilistic Brain Fiber Tractography on GPUs <b>2012</b> ,		2
88	A novel redundant pipelined successive approximation register ADC. <i>IEICE Electronics Express</i> , <b>2013</b> , 10, 20130047-20130047	0.5	2

87	A PLL based WSN transmitter and I/Q LO signal generator at 430 A35 MHz. <i>Analog Integrated Circuits and Signal Processing</i> , <b>2011</b> , 67, 293-308	1.2	2
86	SERSim: a soft error rate simulator and a case study for a 32-bit OpenRisc 1200 microprocessor. <i>International Journal of Electronics</i> , <b>2010</b> , 97, 441-455	1.2	2
85	A voltage-controlled oscillator with an ultra-low supply voltage and its application to a fractional-N phase-locked loop. <i>International Journal of Electronics</i> , <b>2009</b> , 96, 1011-1022	1.2	2
84	A low power error detection in the syndrome calculator block for reed-solomon codes: RS(204,188). <i>Tsinghua Science and Technology</i> , <b>2009</b> , 14, 474-477	3.4	2
83	A heterogeneous accelerator platform for multi-subject voxel-based brain network analysis 2011,		2
82	A fast-locking all-digital phase-locked loop with a novel counter-based mode switching controller <b>2009</b> ,		2
81	Implementation of low-swing differential interface circuits for high-speed on-chip asynchronous interconnection. <i>Science in China Series F: Information Sciences</i> , <b>2008</b> , 51, 975-984		2
80	Leakage Power Modeling Method for SRAM Considering Temperature, Supply Voltage and Bias Voltage <b>2006</b> ,		2
79	MOS CURRENT MODE LOGIC CIRCUITS: DESIGN CONSIDERATION IN HIGH-SPEED LOW-POWER APPLICATIONS AND ITS FUTURE TREND, A TUTORIAL. <i>International Journal of High Speed Electronics and Systems</i> , <b>2005</b> , 15, 599-614	0.5	2
78	Improved multiuser detector for fast FH/MFSK systems with soft-limiter		2
77	Multi-channel precision-sparsity-adapted inter-frame differential data codec for video neural network processor <b>2020</b> ,		2
76	Balanced Switching Schemes for Gradient-Error Compensation in Current-Steering DACs. <i>IEICE Transactions on Electronics</i> , <b>2012</b> , E95.C, 1790-1798	0.4	2
75	CNN-based Monocular Decentralized SLAM on embedded FPGA <b>2020</b> ,		2
74	Optimization and Evaluation of Energy-Efficient Mixed-Signal MFCC Feature Extraction Architecture <b>2020</b> ,		2
73	A priority-based selective bit dropping strategy to reduce DRAM and SRAM power in image processing. <i>IEICE Electronics Express</i> , <b>2016</b> , 13, 20160990-20160990	0.5	2
72	A 2.2-GHz Configurable Direct Digital Frequency Synthesizer Based on LUT and Rotation. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2019</b> , 66, 1970-1980	3.9	2
71	Epipolar Geometry Guided Highly Robust Structured Light 3D Imaging. <i>IEEE Signal Processing Letters</i> , <b>2021</b> , 28, 887-891	3.2	2
70	CP-FPGA: Energy-Efficient Nonvolatile FPGA With Offline/Online Checkpointing Optimization. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2017</b> , 25, 2153-2163	2.6	1

69	AERIS <b>2019</b> ,		1
68	HS3-DPG: Hierarchical Simulation for 3-D P/G Network. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2015</b> , 23, 2307-2311	2.6	1
67	One-Shot Refresh: A Low-Power Low-Congestion Approach for Dynamic Memories. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2020</b> , 67, 3402-3406	3.5	1
66	GAAS: An Efficient Group Associated Architecture and Scheduler Module for Sparse CNN Accelerators. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2020</b> , 39, 5170-5182	2.5	1
65	Two-stream binocular network: Accurate near field finger detection based on binocular images <b>2017</b> ,		1
64	Mechanical strain and temperature aware design methodology for thin-film transistor based pseudo-CMOS logic array <b>2018</b> ,		1
63	Accurate personal ultraviolet dose estimation with multiple wearable sensors 2016,		1
62	NVPsim: A simulator for architecture explorations of nonvolatile processors 2016,		1
61	Using nonvolatile processors to reduce leakage in power management approaches 2014,		1
60	Design and implementation of motion compensator in memory reduced HDTV decoder with embedded compression engine. <i>Multimedia Tools and Applications</i> , <b>2012</b> , 56, 597-614	2.5	1
59	HS3DPG: Hierarchical simulation for 3D P/G network <b>2013</b> ,		1
58	A 6-bit 320-MS/s 2-bit/cycle SAR ADC with tri-level charge redistribution <b>2015</b> ,		1
57	Simultaneous accelerator parallelization and point-to-point interconnect insertion for bus-based embedded SoCs. <i>Tsinghua Science and Technology</i> , <b>2015</b> , 20, 644-660	3.4	1
56	Increasing compression ratio of low complexity compressive sensing video encoder with application-aware configurable mechanism <b>2014</b> ,		1
55	A 12-bit 400-MS/s SHA-less pipelined ADC <b>2014</b> ,		1
54	A low power time-to-digital converter for all-digital phase-locked loop. <i>Journal of Electronics</i> , <b>2011</b> , 28, 402-408		1
53	Cooperative blind receiving scheme for space-time coding systems 2010,		1
52	Transmission line inspires a new distributed algorithm to solve the nonlinear dynamical system of physical circuit <b>2010</b> ,		1

51	Low-Power Off-Chip Memory Design for Video Decoder Using Embedded Bus-Invert Coding 2011,		1
50	System-Level Evaluation of Video Processing System Using SimpleScalar-Based Multi-core Processor Simulator <b>2011</b> ,		1
49	Design methodology of multistage time-domain logic speculation circuits 2011,		1
48	A Functional Model of SystemC-Based MPEG-2 Decoder with Heterogeneous Multi-IP-Cores and Hybrid-Interconnections Architecture <b>2009</b> ,		1
47	Comparison of Sigma-Delta Modulator for fractional-N PLL frequency synthesizer. <i>Journal of Electronics</i> , <b>2007</b> , 24, 374-379		1
46	More Practical Intermodulation Distortion in Envelope Elimination and Restoration RF Power Amplifiers. <i>Midwest Symposium on Circuits and Systems</i> , <b>2006</b> ,	1	1
45	Accurate and Fast Estimation of Junction Band-to-Band Leakage in Nanometer-Scale MOSFET <b>2006</b> ,		1
44	A 10-Bit, 40 MSamples/s Low Power Pipeline ADC for System-on-a-Chip Digital TV Application <b>2006</b> ,		1
43	Sensitivity of carrier offset and MAI in DAPSK-MC-CDMA systems 2007,		1
42	A highly linear low voltage CMOS triode transconductor <b>2007</b> ,		1
42	A highly linear low voltage CMOS triode transconductor 2007,  MODIFIED CONDITIONAL-PRECHARGE SENSE-AMPLIFIER-BASED FLIP-FLOP WITH IMPROVED SPEED. Journal of Circuits, Systems and Computers, 2007, 16, 199-210	0.9	1
	MODIFIED CONDITIONAL-PRECHARGE SENSE-AMPLIFIER-BASED FLIP-FLOP WITH IMPROVED	0.9	
41	MODIFIED CONDITIONAL-PRECHARGE SENSE-AMPLIFIER-BASED FLIP-FLOP WITH IMPROVED SPEED. <i>Journal of Circuits, Systems and Computers</i> , <b>2007</b> , 16, 199-210  A low power ROM-less direct digital frequency synthesizer with preset value pipelined accumulator	0.9	1
41	MODIFIED CONDITIONAL-PRECHARGE SENSE-AMPLIFIER-BASED FLIP-FLOP WITH IMPROVED SPEED. Journal of Circuits, Systems and Computers, 2007, 16, 199-210  A low power ROM-less direct digital frequency synthesizer with preset value pipelined accumulator 2006,	0.9	1
41 40 39	MODIFIED CONDITIONAL-PRECHARGE SENSE-AMPLIFIER-BASED FLIP-FLOP WITH IMPROVED SPEED. Journal of Circuits, Systems and Computers, 2007, 16, 199-210  A low power ROM-less direct digital frequency synthesizer with preset value pipelined accumulator 2006,  A Novel Low-Power and High-Speed Master-Slave D Flip-Flop 2006,  Full Time-Varying Phase Noise Analysis for MOS Oscillators Based on Floquet and Sylvester		1 1 1
41 40 39 38	MODIFIED CONDITIONAL-PRECHARGE SENSE-AMPLIFIER-BASED FLIP-FLOP WITH IMPROVED SPEED. Journal of Circuits, Systems and Computers, 2007, 16, 199-210  A low power ROM-less direct digital frequency synthesizer with preset value pipelined accumulator 2006,  A Novel Low-Power and High-Speed Master-Slave D Flip-Flop 2006,  Full Time-Varying Phase Noise Analysis for MOS Oscillators Based on Floquet and Sylvester Theorems. Analog Integrated Circuits and Signal Processing, 2005, 45, 247-261  PACA: A Pattern Pruning Algorithm and Channel-Fused High PE Utilization Accelerator for CNNs.	1.2	1 1 1
41 40 39 38 37	MODIFIED CONDITIONAL-PRECHARGE SENSE-AMPLIFIER-BASED FLIP-FLOP WITH IMPROVED SPEED. Journal of Circuits, Systems and Computers, 2007, 16, 199-210  A low power ROM-less direct digital frequency synthesizer with preset value pipelined accumulator 2006,  A Novel Low-Power and High-Speed Master-Slave D Flip-Flop 2006,  Full Time-Varying Phase Noise Analysis for MOS Oscillators Based on Floquet and Sylvester Theorems. Analog Integrated Circuits and Signal Processing, 2005, 45, 247-261  PACA: A Pattern Pruning Algorithm and Channel-Fused High PE Utilization Accelerator for CNNs. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 1-1  Multistage Function Speculation Adders. IEICE Transactions on Fundamentals of Electronics,	2.5	1 1 1 1 1

33	Design of Almost-Nonvolatile Embedded DRAM Using Nanoelectromechanical Relay Devices 2020,		1
32	CDS-RSRAM: a Reconfigurable SRAM Architecture to Reduce Read Power with Column Data Segmentation <b>2020</b> ,		1
31	A Real-Time and Energy-Efficient Implementation of Difference-of-Gaussian with Flexible Thin-Film Transistors <b>2016</b> ,		1
30	Optimizing convolutional neural network on FPGA under heterogeneous computing framework with OpenCL <b>2016</b> ,		1
29	Design Methodology for TFT-Based Pseudo-CMOS Logic Array With Multilayer Interconnection Architecture and Optimization Algorithms. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2019</b> , 38, 2043-2057	2.5	1
28	ASP-SIFT: Using Analog Signal Processing Architecture to Accelerate Keypoint Detection of SIFT Algorithm. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2020</b> , 28, 198-211	2.6	1
27	A Non-Volatile Computing-In-Memory Framework With Margin Enhancement Based CSA and Offset Reduction Based ADC <b>2021</b> ,		1
26	CLECG: A novel Contrastive Learning Framework for Electrocardiogram Arrhythmia Classification. <i>IEEE Signal Processing Letters</i> , <b>2021</b> , 1-1	3.2	1
25	Energy-Efficient SRAM Design with Data-Aware Dual-Modes L0T Storage Cell for CNN Processors <b>2018</b> ,		1
24	FTT-NAS: Discovering Fault-tolerant Convolutional Neural Architecture. <i>ACM Transactions on Design Automation of Electronic Systems</i> , <b>2021</b> , 26, 1-24	1.5	1
23	Redundancy-bandwidth scalable techniques for signal-independent element transition rates in high-speed current-steering DACs. <i>International Journal of Circuit Theory and Applications</i> , <b>2018</b> , 46, 10	06-102	27°
22	Host cancelation-based spread spectrum watermarking for audio anti-piracy over Internet. <i>Security and Communication Networks</i> , <b>2016</b> , 9, 4691-4702	1.9	O
21	Dual-mode low power pipelined ADC with pre-charged switched operational amplifier. <i>Tsinghua Science and Technology</i> , <b>2010</b> , 15, 221-227	3.4	0
20	DyTAN: Dynamic Ternary Content Addressable Memory Using Nanoelectromechanical Relays. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2021</b> , 29, 1981-1993	2.6	O
19	. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, <b>2021</b> , 40, 2237-2250	2.5	0
18	High-Quality Single-Model Deep Video Compression with Frame-Conv3D and Multi-frame Differential Modulation. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 239-254	0.9	O
17	Bridge Dynamic Displacement Monitoring using Adaptive Data Fusion of GNSS and Accelerometer Measurements. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1	4	О
16	. IEEE Access, <b>2021</b> , 9, 84773-84782	3.5	O

#### LIST OF PUBLICATIONS

15	A novel digital compensation technique for current bias without additional power consumption. Analog Integrated Circuits and Signal Processing, 2014, 80, 557-564	1.2
14	Evaluation and mitigation of performance degradation under random telegraph noise for digital circuits. <i>IET Circuits, Devices and Systems</i> , <b>2013</b> , 7, 273-282	1.1
13	Low-standby-current and high-speed SAFF with improved conditional-precharge modules. <i>International Journal of Electronics</i> , <b>2009</b> , 96, 639-656	1.2
12	Software tools for analyzing NBTI-induced digital circuit degradation. <i>Journal of Electronics</i> , <b>2009</b> , 26, 715-719	
11	An accurate prediction model for computational overheads of security mechanisms in Wireless Sensor Networks. <i>Journal of Electronics</i> , <b>2009</b> , 26, 699-705	
10	A "NEAR-THE-BEST" SYSTEM-LEVEL DESIGN METHODOLOGY OF MULTI-CORE H.264 VIDEO DECODER BASED ON THE PARALLELIZED MULTI-CORE SIMULATOR. <i>Journal of Circuits, Systems and Computers</i> , <b>2012</b> , 21, 1250058	0.9
9	Robustness Mode Detection Algorithm in the DRM System. <i>IEEE Transactions on Broadcasting</i> , <b>2008</b> , 54, 792-798	4.7
8	Phase noise analysis of oscillators with Sylvester representation for periodic time-varying modulus matrix by regular perturbations. <i>Science in China Series F: Information Sciences</i> , <b>2007</b> , 50, 587-599	
7	Channel estimation with circularly slipping window in MIMO-OFDM systems. <i>Journal of Electronics</i> , <b>2006</b> , 23, 929-932	
6	Accuracy Optimization With the Framework of Non-Volatile Computing-In-Memory Systems. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2021</b> , 1-12	3.9
5	A 65-nm Energy-Efficient Interframe Data Reuse Neural Network Accelerator for Video Applications. <i>IEEE Journal of Solid-State Circuits</i> , <b>2021</b> , 1-1	5.5
4	An Energy Efficient Sensor Network Processor with Latency-Aware Adaptive Compression. <i>IEICE Transactions on Electronics</i> , <b>2011</b> , E94-C, 1220-1228	0.4
3	INCAME: Interruptible CNN Accelerator for Multi-robot Exploration. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2021</b> , 1-1	2.5
2	. IEEE Sensors Journal, <b>2021</b> , 1-1	4
1	Bit-Aware Fault-Tolerant Hybrid Retraining and Remapping Schemes for RRAM-Based Computing-in-Memory Systems. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2022</b> , 1-1	3.5