Anantha P Chandrakasan

List of Publications by Year
in descending order

54 papers	3,074 citations	236925 25 h-index	302126 39 g-index
54 all docs	54 docs citations	54 times ranked	4176 citing authors

#	Article	IF	Citations
1	An ingestible bacterial-electronic system to monitor gastrointestinal health. Science, 2018, 360, 915-918.	12.6	380
2	A 256-kb 65-nm Sub-threshold SRAM Design for Ultra-Low-Voltage Operation. IEEE Journal of Solid-State Circuits, 2007, 42, 680-688.	5.4	352
3	Strain-programmable fiber-based artificial muscle. Science, 2019, 365, 145-150.	12.6	298
4	Ultralow-Power Electronics for Biomedical Applications. Annual Review of Biomedical Engineering, 2008, 10, 247-274.	12.3	270
5	CONV-SRAM: An Energy-Efficient SRAM With In-Memory Dot-Product Computation for Low-Power Convolutional Neural Networks. IEEE Journal of Solid-State Circuits, 2019, 54, 217-230.	5.4	221
6	Prolonged energy harvesting for ingestible devices. Nature Biomedical Engineering, 2017, 1, .	22.5	148
7	Ultrasonic Imaging Transceiver Design for CMUT: A Three-Level 30-Vpp Pulse-Shaping Pulser With Improved Efficiency and a Noise-Optimized Receiver. IEEE Journal of Solid-State Circuits, 2013, 48, 2734-2745.	5.4	114
8	An Energy-Efficient All-Digital UWB Transmitter Employing Dual Capacitively-Coupled Pulse-Shaping Drivers. IEEE Journal of Solid-State Circuits, 2009, 44, 1679-1688.	5.4	112
9	A 6 mW, 5,000-Word Real-Time Speech Recognizer Using WFST Models. IEEE Journal of Solid-State Circuits, 2015, 50, 102-112.	5.4	92
10	Electric impedance microflow cytometry for characterization of cell disease states. Lab on A Chip, 2013, 13, 3903.	6.0	84
11	Graphene-Based Thermopile for Thermal Imaging Applications. Nano Letters, 2015, 15, 7211-7216.	9.1	81
12	A Sub-nW 2.4 GHz Transmitter for Low Data-Rate Sensing Applications. IEEE Journal of Solid-State Circuits, 2014, 49, 1463-1474.	5.4	79
13	Low-Power Impulse UWB Architectures and Circuits. Proceedings of the IEEE, 2009, 97, 332-352.	21.3	70
14	Breakdown Current Density of CVD-Grown Multilayer Graphene Interconnects. IEEE Electron Device Letters, 2011, 32, 557-559.	3.9	70
15	A 10 bit SAR ADC With Data-Dependent Energy Reduction Using LSB-First Successive Approximation. IEEE Journal of Solid-State Circuits, 2014, 49, 2825-2834.	5.4	62
16	A Noise-Efficient 36 nV/ $surd $ Hz Chopper Amplifier Using an Inverter-Based 0.2-V Supply Input Stage. IEEE Journal of Solid-State Circuits, 2017, 52, 3032-3042.	5.4	55
17	Rapid Wireless Capacitor Charging Using a Multi-Tapped Inductively-Coupled Secondary Coil. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 2263-2272.	5.4	48
18	A 3.4-pJ FeRAM-Enabled D Flip-Flop in 0.13-$mu hbox{m}$ CMOS for Nonvolatile Processing in Digital Systems. IEEE Journal of Solid-State Circuits, 2014, 49, 202-211.	5.4	45

#	Article	IF	Citations
19	Application-Specific SRAM Design Using Output Prediction to Reduce Bit-Line Switching Activity and Statistically Gated Sense Amplifiers for Up to 1.9$imes$ Lower Energy/Access. IEEE Journal of Solid-State Circuits, 2014, 49, 107-117.	5.4	43
20	Cost and Coding Efficient Motion Estimation Design Considerations for High Efficiency Video Coding (HEVC) Standard. IEEE Journal on Selected Topics in Signal Processing, 2013, 7, 1017-1028.	10.8	40
21	Ultra Low-Energy Relaxation Oscillator With 230 fJ/cycle Efficiency. IEEE Journal of Solid-State Circuits, 2016, 51, 789-799.	5.4	40
22	An Energy-Efficient Reconfigurable DTLS Cryptographic Engine for Securing Internet-of-Things Applications. IEEE Journal of Solid-State Circuits, 2019, 54, 2339-2352.	5.4	33
23	A 128 Kbit SRAM With an Embedded Energy Monitoring Circuit and Sense-Amplifier Offset Compensation Using Body Biasing. IEEE Journal of Solid-State Circuits, 2014, 49, 2730-2739.	5.4	31
24	A Scalable, 2.9 mW, 1 Mb/s e-Textiles Body Area Network Transceiver With Remotely-Powered Nodes and Bi-Directional Data Communication. IEEE Journal of Solid-State Circuits, 2014, 49, 1995-2004.	5.4	27
25	Low-Swing Signaling on Monolithically Integrated Global Graphene Interconnects. IEEE Transactions on Electron Devices, 2010, 57, 3418-3425.	3.0	25
26	A 28 nm FDSOI Integrated Reconfigurable Switched-Capacitor Based Step-Up DC-DC Converter With 88% Peak Efficiency. IEEE Journal of Solid-State Circuits, 2015, 50, 1540-1549.	5.4	25
27	A Low-Voltage Energy-Sampling IR-UWB Digital Baseband Employing Quadratic Correlation. IEEE Journal of Solid-State Circuits, 2010, 45, 1209-1219.	5.4	24
28	A Nonvolatile Flip-Flop-Enabled Cryptographic Wireless Authentication Tag With Per-Query Key Update and Power-Glitch Attack Countermeasures. IEEE Journal of Solid-State Circuits, 2017, 52, 272-283.	5.4	20
29	Zero-Crossing Detector Based Reconfigurable Analog System. IEEE Journal of Solid-State Circuits, 2011, 46, 2478-2487.	5.4	19
30	Experimental study of the interplay of channel and network coding in low power sensor applications. , 2013, , .		18
31	Demonstration of a Subthreshold FPGA Using Monolithically Integrated Graphene Interconnects. IEEE Transactions on Electron Devices, 2013, 60, 383-390.	3.0	18
32	A 0.31-THz Orbital-Angular-Momentum (OAM) Wave Transceiver in CMOS With Bits-to-OAM Mode Mapping. IEEE Journal of Solid-State Circuits, 2022, 57, 1344-1357.	5.4	13
33	A Supply-Rail-Coupled eTextiles Transceiver for Body-Area Networks. IEEE Journal of Solid-State Circuits, 2011, 46, 1284-1295.	5.4	12
34	An Actively Detuned Wireless Power Receiver With Public Key Cryptographic Authentication and Dynamic Power Allocation. IEEE Journal of Solid-State Circuits, 2018, 53, 236-246.	5.4	12
35	0.3 V ultra-low power sensor interface for EMG. , 2017, , .		11
36	CMOS THz-ID: A 1.6-mmÂ² Package-Less Identification Tag Using Asymmetric Cryptography and 260-GHz Far-Field Backscatter Communication. IEEE Journal of Solid-State Circuits, 2021, 56, 340-354.	5.4	11

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37	Harnessing Partial Packets in Wireless Networks: Throughput and Energy Benefits. IEEE Transactions on Wireless Communications, 2017, 16, 694-704.	9.2	8
38	An ASIC for Energy-Scalable, Low-Power Digital Ultrasound Beamforming. , 2016, , .		7
39	29.8 THzID: A 1.6mm2 Package-Less Cryptographic Identification Tag with Backscattering and Beam-Steering at 260GHz. , 2020, , .		7
40	A Duty-Cycled Integrated-Fluxgate Magnetometer for Current Sensing. IEEE Journal of Solid-State Circuits, 2022, 57, 2741-2751.	5.4	7
41	A 28nm FDSOI integrated reconfigurable switched-capacitor based step-up DC-DC converter with 88% peak efficiency. , 2014, , .		6
42	A ZVS resonant receiver with maximum efficiency tracking for device-to-device wireless charging. , 2016, , .		5
43	A 0.36V 128Kb 6T SRAM with energy-efficient dynamic body-biasing and output data prediction in 28nm FDSOI. , 2016, , .		5
44	A Random Linear Network Coding Accelerator in a 2.4GHz Transmitter for IoT Applications. IEEE Transactions on Circuits and Systems I: Regular Papers, 2017, 64, 2582-2590.	5.4	5
45	Ultrasonic imaging front-end design for CMUT: A 3-level 30Vpp pulse-shaping pulser with improved efficiency and a noise-optimized receiver. , 2012, , .		4
46	Single-BAW multi-channel transmitter with low power and fast start-up time. , 2017, , .		4
47	An offset-cancelling four-phase voltage sense amplifier for resistive memories in 14nm CMOS. , 2017, , .		3
48	A Low-Power BLS12-381 Pairing Cryptoprocessor for Internet-of-Things Security Applications. IEEE Solid-State Circuits Letters, 2021, 4, 190-193.	2.0	3
49	A 12b 5-to-50MS/s 0.5-to-1V voltage scalable zero-crossing based pipelined ADC. , 2011, , .		2
50	Technique for Efficient Evaluation of SRAM Timing Failure. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2013, 21, 1558-1562.	3.1	2
51	Recode then LSB-first SAR ADC for Reducing Energy and Bit-cycles. , 2018, , .		2
52	System energy model for a digital ultrasound beamformer with image quality control. , 2012, , .		1
53	A nonvolatile flip-flop-enabled cryptographic wireless authentication tag with per-query key update and power-glitch attack countermeasures. , 2018, , .		0
54	Understanding the Energy vs. Adversarial Robustness Trade-Off in Deep Neural Networks. IEEE Open Journal of Circuits and Systems, 2021, 2, 843-855.	1.9	0