Jerald Yoo

List of Publications by Year in descending order

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Version: 2024-02-01

95 papers	2,193 citations	489802 18 h-index	388640 36 g-index
97 all docs	97 docs citations	97 times ranked	1775 citing authors

#	Article	IF	Citations
1	Biphasic Current Stimulator for Retinal Prosthesis. , 2022, , 1185-1199.		0
2	A Patient-Specific Closed-Loop Epilepsy Management SoC With One-Shot Learning and Online Tuning. IEEE Journal of Solid-State Circuits, 2022, 57, 1049-1060.	3.5	19
3	BatDrone: A 9.83M-focal-points/s 7.76Âµs-Latency Ultrasound Imaging System with On-Chip Per-Voxel RX Beamfocusing for 7m-Range Drone Applications. , 2022, , .		1
4	Group-Chopping: An 8-Channel, 0.04% Gain Mismatch, 2.1 ÂµW 0.017 mm² Instrumentation Amplifier for Bio-Potential Recording. IEEE Transactions on Biomedical Circuits and Systems, 2022, 16, 361-371.	2.7	3
5	An Ultrasound ASIC With Universal Energy Recycling for >7-m All-Weather Metamorphic Robotic Vision. IEEE Journal of Solid-State Circuits, 2022, 57, 3036-3047.	3.5	5
6	Body-coupled power transmission and energy harvesting. Nature Electronics, 2021, 4, 530-538.	13.1	61
7	A One-Shot Learning, Online-Tuning, Closed-Loop Epilepsy Management SoC with 0.97Î¼J/Classification and 97.8% Vector-Based Sensitivity. , 2021, , .		5
8	Hardware Acceleration of EEG-Based Emotion Classification Systems: A Comprehensive Survey. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 412-442.	2.7	12
9	A 36-Channel Auto-Calibrated Front-End ASIC for a pMUT-Based Miniaturized 3-D Ultrasound System. IEEE Journal of Solid-State Circuits, 2021, 56, 1910-1923.	3.5	26
10	A Fully Energy-Autonomous Temperature-to-Time Converter Powered by a Triboelectric Energy Harvester for Biomedical Applications. IEEE Journal of Solid-State Circuits, 2021, 56, 2913-2923.	3.5	9
11	Body-Coupled Power Transceiver with Node-Specific Body-Area Powering. , 2021, , .		8
12	Neural interface systems with on-device computing: machine learning and neuromorphic architectures. Current Opinion in Biotechnology, 2021, 72, 95-101.	3.3	22
13	Body-coupled wireless power transfer and energy harvesting for wearables. , 2021, , .		0
14	Wearables to Electronics: The Key Enabler for Personalized Healthcare. , 2020, , .		0
15	BioCNN: A Hardware Inference Engine for EEG-Based Emotion Detection. IEEE Access, 2020, 8, 140896-140914.	2.6	28
16	A 3-Mbps, 802.11g-Based EMG Recording System With Fully Implantable 5-Electrode EMGxbrk Acquisition Device. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 889-902.	2.7	10
17	A 0.14 pJ/conversion Fully Energy-Autonomous Temperature-to-Time Converter for Biomedical Applications. IEEE Solid-State Circuits Letters, 2020, 3, 466-469.	1.3	4
18	An Inference Hardware Accelerator for EEG-Based Emotion Detection. , 2020, , .		6

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19	1225-Channel Neuromorphic Retinal-Prosthesis SoC With Localized Temperature-Regulation. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 1230-1240.	2.7	22
20	Body-Area Powering With Human Body-Coupled Power Transmission and Energy Harvesting ICs. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 1263-1273.	2.7	27
21	An Active Concentric Electrode for Concurrent EEG Recording and Body-Coupled Communication (BCC) Data Transmission. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 1253-1262.	2.7	15
22	34.6 EEG Dust: A BCC-Based Wireless Concurrent Recording/Transmitting Concentric Electrode. , 2020, , .		12
23	34.2 1225-Channel Localized Temperature-Regulated Neuromorphic Retinal-Prosthesis SoC with 56.3nW/Channel Image Processor. , 2020, , .		12
24	34.5 Human-Body-Coupled Power-Delivery and Ambient-Energy-Harvesting ICs for a Full-Body-Area Power Sustainability. , 2020, , .		21
25	A 15-Channel Orthogonal Code Chopping Instrumentation Amplifier for Area-Efficient, Low-Mismatch Bio-Signal Acquisition. IEEE Journal of Solid-State Circuits, 2020, 55, 2771-2780.	3.5	11
26	Area and Energy-Efficient Multi-Channel Instrumentation Amplifiers for Biomedical Applications. , 2020, , .		0
27	An 8-channel 2.1 Î¼ W0.017 mm² 0.04% Gain Mismatch Bio-potential Recording AFE using Group-Chopping Technique. , 2019, , .		0
28	11.1 A 5.37mW/Channel Pitch-Matched Ultrasound ASIC with Dynamic-Bit-Shared SAR ADC and 13.2V Charge-Recycling TX in Standard CMOS for Intracardiac Echocardiography. , 2019, , .		20
29	A 0.012 mm2, $1.5 mathrm{G}Omega$ Z_{IN} Intrinsic Feedback Capacitor Instrumentation Amplifier for Bio-Potential Recording and Respiratory Monitoring. , 2019, , .		2
30	A 15-Ch. 0.019 mm²/Ch. 0.43% Gain Mismatch Orthogonal Code Chopping Instrumentation Amplifier SoC for Bio-Signal Acquisition. , 2019, , .		3
31	Screen Printed Passives and Interconnects on Bio-Degradable Medical Hydrocolloid Dressing for Wearable Sensors. Scientific Reports, 2019, 9, 17467.	1.6	10
32	EEG-based Emotion Detection Using Unsupervised Transfer Learning. , 2019, 2019, 694-697.		27
33	Energy-Efficient Body Area Network Transceiver Using Body-Coupled Communication. , 2019, , 127-139.		1
34	A Pseudo OFDM With Miniaturized FSK Demodulation Body-Coupled Communication Transceiver for Binaural Hearing Aids in 65 nm CMOS. IEEE Journal of Solid-State Circuits, 2017, 52, 757-768.	3.5	41
35	Body coupled communication: Towards energy-efficient body area network applications. , 2017, , .		4
36	A 1.1-mW Ground Effect-Resilient Body-Coupled Communication Transceiver With Pseudo OFDM for Head and Body Area Network. IEEE Journal of Solid-State Circuits, 2017, 52, 2690-2702.	3.5	54

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37	On-chip epilepsy detection: Where machine learning meets patient-specific healthcare. , 2017, , .		4
38	Design and modeling of an inductive coupling wireless power transfer using printed spirals on medical hydrocolloid dressings. , 2017, , .		2
39	Ultra-Low Power Analog Interfaces for IoT. , 2017, , 343-359.		0
40	A 2.34Î¼J/scan acoustic power scalable charge-redistribution pMUT interface system with on-chip aberration compensation for portable ultrasonic applications. , 2016, , .		3
41	A 1.1mW hybrid OFDM ground effect-resilient body coupled communication transceiver for head and body area network. , 2016, , .		5
42	Design of energy-efficient on-chip EEG classification and recording processors for wearable environments. , 2016, , .		9
43	Design and Implementation of an On-Chip Patient-Specific Closed-Loop Seizure Onset and Termination Detection System. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 996-1007.	3.9	29
44	A 1.83 J/Classification, 8-Channel, Patient-Specific Epileptic Seizure Classification SoC Using a Non-Linear Support Vector Machine. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 49-60.	2.7	96
45	A 16-channel, 1-second latency patient-specific seizure onset and termination detection processor with dual detector architecture and digital hysteresis. , 2015, , .		6
46	A Pulsed-Index Technique for Single-Channel, Low-Power, Dynamic Signaling. , 2015, , .		17
47	Human body and head characteristics as a communication medium for Body Area Network. , 2015, 2015, 1845-8.		13
48	A 23μW digitally controlled pMUT interface circuit for Doppler ultrasound Imaging. , 2015, , .		4
49	A 2.45Î¼W patient-specific non-invasive transcranial electrical stimulator with an adaptive skin-electrode impedance monitor. , 2015, , .		0
50	A 16-Channel Patient-Specific Seizure Onset and Termination Detection SoC With Impedance-Adaptive Transcranial Electrical Stimulator. IEEE Journal of Solid-State Circuits, 2015, 50, 2728-2740.	3.5	140
51	21.8 A 16-ch patient-specific seizure onset and termination detection SoC with machine-learning and voltage-mode transcranial stimulation. , 2015, , .		21
52	A hybrid OFDM body coupled communication transceiver for binaural hearing aids in 65nm CMOS. , 2015, , .		17
53	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.	3.5	27
54	An 8-Channel Scalable EEG Acquisition SoC With Patient-Specific Seizure Classification and Recording Processor. IEEE Journal of Solid-State Circuits, 2013, 48, 214-228.	3.5	220

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55	A 1.52 uJ/classification patient-specific seizure classification processor using Linear SVM. , 2013, , .		1
56	A 1.83µJ/classification nonlinear support-vector-machine-based patient-specific seizure classification SoC. , 2013, , .		20
57	A scalable 2.9mW 1Mb/s eTextiles body area network transceiver with remotely powered sensors and bi-directional data communication. , 2013, , .		1
58	An 8-channel scalable EEG acquisition SoC with fully integrated patient-specific seizure classification and recording processor. , 2012, , .		50
59	A Wirelessly Powered Electro-Acupuncture Based on Adaptive Pulsewidth Monophase Stimulation. IEEE Transactions on Biomedical Circuits and Systems, 2011, 5, 138-146.	2.7	11
60	Fabric circuit board-based dry electrode and its characteristics for long-term physiological signal recording. , 2011, 2011, 2497-500.		13
61	Wearable Healthcare System. Integrated Circuits and Systems, 2011, , 339-370.	0.2	2
62	A 40fJ/c-s 1 V 10 bit SAR ADC with Dual Sampling Capacitive DAC Topology. Journal of Semiconductor Technology and Science, 2011, 11, 23-32.	0.1	4
63	Wireless fabric patch sensors for wearable healthcare. , 2010, 2010, 5254-7.		10
64	A 5.2 mW Self-Configured Wearable Body Sensor Network Controller and a 12 muW Wirelessly Powered Sensor for a Continuous Health Monitoring System. IEEE Journal of Solid-State Circuits, 2010, 45, 178-188.	3.5	193
65	A 0.5-muV$_{m rms}$ 12-muW Wirelessly Powered Patch-Type Healthcare Sensor for Wearable Body Sensor Network. IEEE Journal of Solid-State Circuits, 2010, , .	3.5	21
66	A Low-Energy Inductive Coupling Transceiver With Cm-Range 50-Mbps Data Communication in Mobile Device Applications. IEEE Journal of Solid-State Circuits, 2010, , .	3.5	18
67	Emerging low energy Wearable Body Sensor Networks using patch sensors for continuous healthcare applications. , 2010, 2010, 6381-4.		18
68	Planar-Fabric Circuit Board and Silicon-on-Clothes for wearable healthcare applications. , 2010, , .		3
69	A 4.78.MU.s Dynamic Compensated Inductive Coupling Transceiver for Ubiquitous and Wearable Body Sensor Network. IEICE Transactions on Communications, 2010, E93-B, 2892-2900.	0.4	0
70	A 200-Mbps 0.02-nJ/b Dual-Mode Inductive Coupling Transceiver for cm-Range Multimedia Application. IEEE Transactions on Circuits and Systems I: Regular Papers, 2009, 56, 1063-1072.	3.5	19
71	A 5.2mW self-configured wearable body sensor network controller and a 12µW 54.9% efficiency wirelessly powered sensor for continuous health monitoring system. , 2009, , .		33
72	Low energy wearable body-sensor-network. , 2009, 2009, 3209-12.		5

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73	A Wearable ECG Acquisition System With Compact Planar-Fashionable Circuit Board-Based Shirt. IEEE Transactions on Information Technology in Biomedicine, 2009, 13, 897-902.	3.6	154
74	A 0.5µV<inf>rms</inf> 12µW patch type fabric sensor for wearable body sensor network. , 2009, , .		2
75	A 1.3pJ/b inductive coupling transceiver with adaptive gain control for Cm-range 50Mbps data communication. , 2009, , .		4
76	An energy-efficient dual sampling SAR ADC with reduced capacitive DAC. , 2009, , .		10
77	A 1.12 pJ/b Inductive Transceiver With a Fault-Tolerant Network Switch for Multi-Layer Wearable Body Area Network Applications. IEEE Journal of Solid-State Circuits, 2009, 44, 2999-3010.	3.5	37
78	An Attachable ECG Sensor Bandage with Planar-Fashionable Circuit Board. , 2009, , .		24
79	A wearable inductor channel design for blood pressure monitoring system in daily life. , 2009, , .		9
80	A healthcare monitoring system with wireless woven inductor channels for body sensor network. , 2008, , .		2
81	A 1.12pJ/b resonance compensated inductive transceiver with a fault-tolerant network controller for wearable body sensor networks. , 2008, , .		10
82	A two-electrode 2.88nJ/conversion biopotential acquisition system for portable healthcare device. , 2008, , .		11
83	A 200Mbps 0.02nJ/b dual-mode inductive coupling transceiver for cm-range interconnection. , 2008, , .		2
84	Analysis of Body Sensor Network Using Human Body as the Channel. , 2008, , .		10
85	An Embedded 8-bit RISC Controller for Yield Enhancement of the 90-nm PRAM. , 2007, , .		2
86	Processor-Based Built-in Self-Optimizer for 90nm Diode-Switch PRAM. , 2007, , .		2
87	A 0.9V 2.6mW Body-Coupled Scalable PHY Transceiver for Body Sensor Applications. , 2007, , .		38
88	The Human Body Characteristics as a Signal Transmission Medium for Intrabody Communication. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 1080-1086.	2.9	308
89	A Low-power Star-topology Body Area Network Controller for Periodic Data Monitoring Around and Inside the Human Body. Proceedings International Symposium on Wearable Computers, 2006, , .	0.0	8
90	An Ultra Low-Power Body Sensor Network Control Processor with Centralized Node Control. , 2006, , .		0

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91	A 24.2-Â¿ W Dual-Mode Human Body Communication Controller for Body Sensor Network. Solid-State Circuits Conference, 2008 ESSCIRC 2008 34th European, 2006, , .	0.0	6
92	A TCAM-based Periodic Event Generator for Multi-Node Management in the Body Sensor Network. , 2006, , .		6
93	A Multi-Nodes Human Body Communication Sensor Network Control Processor. , 2006, , .		3
94	Efficient implementations of mobile video computations on domain-specific reconfigurable arrays. , 2004, , .		5
95	A 10-Î¼W digital signal processor with adaptive-SNR monitoring for a sub-1V digital hearing aid. , 0, , .		1