

Mahsa Shoaran

List of Publications by Year in descending order

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38
papers

634
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840585

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39
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39
docs citations

39
times ranked

494
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy-Efficient Classification for Resource-Constrained Biomedical Applications. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 693-707.	2.7	88
2	Compact Low-Power Cortical Recording Architecture for Compressive Multichannel Data Acquisition. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 857-870.	2.7	81
3	Improved detection of Parkinsonian resting tremor with feature engineering and Kalman filtering. Clinical Neurophysiology, 2020, 131, 274-284.	0.7	45
4	Migraine classification using somatosensory evoked potentials. Cephalalgia, 2019, 39, 1143-1155.	1.8	42
5	ResOT: Resource-Efficient Oblique Trees for Neural Signal Classification. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 692-704.	2.7	31
6	Neural variability quenching during decision-making: Neural individuality and its prestimulus complexity. NeuroImage, 2019, 192, 1-14.	2.1	28
7	Resting Tremor Detection in Parkinson's Disease with Machine Learning and Kalman Filtering. , 2018, ,		25
8	A Fully Integrated IC With 0.85- $\frac{1}{4}$ W/Channel Consumption for Epileptic iEEG Detection. IEEE Transactions on Circuits and Systems II: Express Briefs, 2015, 62, 114-118.	2.2	24
9	Closed-Loop Neural Prostheses With On-Chip Intelligence: A Review and a Low-Latency Machine Learning Model for Brain State Detection. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 877-897.	2.7	23
10	Tunnel FET-based ultra-low power, low-noise amplifier design for bio-signal acquisition. , 2014, ,		22
11	Neural interface systems with on-device computing: machine learning and neuromorphic architectures. Current Opinion in Biotechnology, 2021, 72, 95-101.	3.3	22
12	Hardware Complexity Analysis of Deep Neural Networks and Decision Tree Ensembles for Real-time Neural Data Classification. , 2019, , .		18
13	Analysis and Characterization of Variability in Subthreshold Source-Coupled Logic Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 458-467.	3.5	13
14	Predicting task performance from biomarkers of mental fatigue in global brain activity. Journal of Neural Engineering, 2021, 18, 036001.	1.8	13
15	Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 3929-3941.	3.5	12
16	A 256-Channel 0.227 μ J/class Versatile Brain Activity Classification and Closed-Loop Neuromodulation SoC with 0.004mm ² -1.51 μ W/channel Fast-Settling Highly Multiplexed Mixed-Signal Front-End. , 2022, , .		12
17	Hardware-friendly seizure detection with a boosted ensemble of shallow decision trees. , 2016, 2016, 1826-1829.		11
18	Cost-Efficient Classification for Neurological Disease Detection. , 2019, , .		11

#	ARTICLE	IF	CITATIONS
19	Enhanced Classification of Individual Finger Movements with ECoG. , 2019, , .		10
20	Fast and accurate decoding of finger movements from ECoG through Riemannian features and modern machine learning techniques. Journal of Neural Engineering, 2022, 19, 016037.	1.8	10
21	Design techniques and analysis of high-resolution neural recording systems targeting epilepsy focus localization. , 2012, 2012, 5150-3.		9
22	A low-power area-efficient compressive sensing approach for multi-channel neural recording. , 2013, , .		9
23	A Low Power Multi-Class Migraine Detection Processor Based on Somatosensory Evoked Potentials. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 1720-1724.	2.2	9
24	Unsupervised Domain Adaptation for Cross-Subject Few-Shot Neurological Symptom Detection. , 2021, , .		9
25	A 16-channel 1.1mm ² implantable seizure control SoC with sub-1¼W/channel consumption and closed-loop stimulation in 0.18Åµm CMOS. , 2016, , .		8
26	An 8.7 Î¼J/class. FFT accelerator and DNN-based configurable SoC for Multi-Class Chronic Neurological Disorder Detection. , 2021, , .		8
27	Compressive multichannel cortical signal recording. , 2013, , .		7
28	Structured sampling and recovery of iEEG signals. , 2015, , .		6
29	Learning-Based Near-Optimal Area-Power Trade-offs in Hardware Design for Neural Signal Acquisition. , 2016, , .		6
30	A 41.2 nJ/class, 32-Channel On-Chip Classifier for Epileptic Seizure Detection. , 2018, 2018, 3693-3696.		5
31	Closed-Loop Neural Interfaces with Embedded Machine Learning. , 2020, , .		5
32	A novel compressive sensing architecture for high-density biological signal recording. , 2014, , .		4
33	Towards Adaptive Deep Brain Stimulation in Parkinson'S Disease: Lfp-Based Feature Analysis and Classification. , 2018, , .		3
34	Hardware-Efficient Seizure Detection. , 2019, , .		3
35	Mental Fatigue Prediction from Multi-Channel ECOG Signal. , 2020, , .		2
36	In-vivo validation of a compact inductively-powered neural recording interface. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
37	Jitter analysis and measurement in subthreshold source-coupled differential ring oscillators. , 2015, , .		0
38	A Power-Efficient Compressive Sensing Platform for Cortical Implants. , 2016, , 103-122.		0