

# Mahsa Shoaran

## List of Publications by Year in Descending Order

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

34  
papers

345  
citations

10  
h-index

17  
g-index

39  
ext. papers

478  
ext. citations

4.2  
avg, IF

4.12  
L-index

#	Paper	IF	Citations
34	Neural interface systems with on-device computing: machine learning and neuromorphic architectures. <i>Current Opinion in Biotechnology</i> , <b>2021</b> , 72, 95-101	11.4	4
33	A Low Power Multi-Class Migraine Detection Processor Based on Somatosensory Evoked Potentials. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2021</b> , 68, 1720-1724	3.5	4
32	Unsupervised Domain Adaptation for Cross-Subject Few-Shot Neurological Symptom Detection <b>2021</b> ,		1
31	Predicting task performance from biomarkers of mental fatigue in global brain activity. <i>Journal of Neural Engineering</i> , <b>2021</b> , 18,	5	3
30	Closed-Loop Neural Prostheses With On-Chip Intelligence: A Review and a Low-Latency Machine Learning Model for Brain State Detection. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2021</b> , 15, 877-897	5.1	3
29	An 8.7 $\mu$ /class. FFT accelerator and DNN-based configurable SoC for Multi-Class Chronic Neurological Disorder Detection <b>2021</b> ,		1
28	Mental Fatigue Prediction from Multi-Channel ECoG Signal <b>2020</b> ,		2
27	Closed-Loop Neural Interfaces with Embedded Machine Learning <b>2020</b> ,		4
26	Improved detection of Parkinsonian resting tremor with feature engineering and Kalman filtering. <i>Clinical Neurophysiology</i> , <b>2020</b> , 131, 274-284	4.3	23
25	ResOT: Resource-Efficient Oblique Trees for Neural Signal Classification. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2020</b> , 14, 692-704	5.1	11
24	Hardware Complexity Analysis of Deep Neural Networks and Decision Tree Ensembles for Real-time Neural Data Classification <b>2019</b> ,		10
23	Neural variability quenching during decision-making: Neural individuality and its prestimulus complexity. <i>NeuroImage</i> , <b>2019</b> , 192, 1-14	7.9	16
22	Migraine classification using somatosensory evoked potentials. <i>Cephalalgia</i> , <b>2019</b> , 39, 1143-1155	6.1	23
21	Hardware-Efficient Seizure Detection <b>2019</b> ,		3
20	Enhanced Classification of Individual Finger Movements with ECoG <b>2019</b> ,		5
19	Cost-Efficient Classification for Neurological Disease Detection <b>2019</b> ,		7
18	Resting Tremor Detection in Parkinson's Disease with Machine Learning and Kalman Filtering <b>2019</b> , 2018,		14

17	Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2018</b> , 65, 3929-3941	3.9	10
16	Energy-Efficient Classification for Resource-Constrained Biomedical Applications. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , <b>2018</b> , 8, 693-707	5.2	46
15	A 41.2 nJ/class, 32-Channel On-Chip Classifier for Epileptic Seizure Detection. <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>2018</b> , 2018, 3693-3696	0.9	4
14	Towards Adaptive Deep Brain Stimulation in Parkinson's Disease: Lfp-Based Feature Analysis and Classification <b>2018</b> ,		2
13	Hardware-friendly seizure detection with a boosted ensemble of shallow decision trees. <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>2016</b> , 2016, 1826-1829	0.9	6
12	Learning-Based Near-Optimal Area-Power Trade-offs in Hardware Design for Neural Signal Acquisition <b>2016</b> ,		5
11	A Power-Efficient Compressive Sensing Platform for Cortical Implants <b>2016</b> , 103-122		
10	A 16-channel 1.1mm <sup>2</sup> implantable seizure control SoC with sub- $\mu$ W/channel consumption and closed-loop stimulation in 0.18 $\mu$ m CMOS <b>2016</b> ,		3
9	Analysis and Characterization of Variability in Subthreshold Source-Coupled Logic Circuits. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2015</b> , 62, 458-467	3.9	7
8	Structured sampling and recovery of iEEG signals <b>2015</b> ,		5
7	A Fully Integrated IC With 0.85- $\mu$ W/Channel Consumption for Epileptic iEEG Detection. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2015</b> , 62, 114-118	3.5	20
6	Compact low-power cortical recording architecture for compressive multichannel data acquisition. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2014</b> , 8, 857-70	5.1	59
5	Tunnel FET-based ultra-low power, low-noise amplifier design for bio-signal acquisition <b>2014</b> ,		17
4	A novel compressive sensing architecture for high-density biological signal recording <b>2014</b> ,		4
3	A low-power area-efficient compressive sensing approach for multi-channel neural recording <b>2013</b> ,		7
2	Compressive multichannel cortical signal recording <b>2013</b> ,		5
1	Design techniques and analysis of high-resolution neural recording systems targeting epilepsy focus localization. <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>2012</b> , 2012, 5150-3	0.9	8