

# Chetan Singh Thakur

## List of Publications by Year in descending order

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Version: 2024-02-01

30  
papers

632  
citations

759233

12  
h-index

610901

24  
g-index

31  
all docs

31  
docs citations

31  
times ranked

825  
citing authors

#	ARTICLE	IF	CITATIONS
1	Large-Scale Neuromorphic Spiking Array Processors: A Quest to Mimic the Brain. <i>Frontiers in Neuroscience</i> , 2018, 12, 891.	2.8	177
2	A high-performance MoS <sub>2</sub> synaptic device with floating gate engineering for neuromorphic computing. <i>2D Materials</i> , 2019, 6, 045008.	4.4	72
3	Handheld, low-cost electronic device for rapid, real-time fluorescence-based detection of Hg <sup>2+</sup> , using aptamer-templated ZnO quantum dots. <i>Sensors and Actuators B: Chemical</i> , 2019, 290, 73-78.	7.8	55
4	Neuromorphic Hardware Architecture Using the Neural Engineering Framework for Pattern Recognition. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2017, 11, 574-584.	4.0	37
5	An FPGA-Based Massively Parallel Neuromorphic Cortex Simulator. <i>Frontiers in Neuroscience</i> , 2018, 12, 213.	2.8	37
6	A FPGA Implementation of the CAR-FAC Cochlear Model. <i>Frontiers in Neuroscience</i> , 2018, 12, 198.	2.8	30
7	Hybrid architecture based on two-dimensional memristor crossbar array and CMOS integrated circuit for edge computing. <i>Npj 2D Materials and Applications</i> , 2022, 6, .	7.9	27
8	FPGA implementation of the CAR Model of the cochlea. , 2014, , .		21
9	Turn Down That Noise: Synaptic Encoding of Afferent SNR in a Single Spiking Neuron. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2015, 9, 188-196.	4.0	18
10	An Unsupervised Compressed Sensing Algorithm for Multi-Channel Neural Recording and Spike Sorting. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2018, 26, 1121-1130.	4.9	16
11	Low Power, CMOS-MoS <sub>2</sub> Memtransistor based Neuromorphic Hybrid Architecture for Wake-Up Systems. <i>Scientific Reports</i> , 2019, 9, 15604.	3.3	16
12	Neuromorphic vision: From sensors to event-based algorithms. <i>Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery</i> , 2019, 9, e1310.	6.8	15
13	An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2018, 65, 1174-1184.	5.4	13
14	Neuromorphic Fringe Projection Profilometry. <i>IEEE Signal Processing Letters</i> , 2020, 27, 1510-1514.	3.6	12
15	N-HAR: A Neuromorphic Event-Based Human Activity Recognition System using Memory Surfaces. , 2019, , .		11
16	A Closed-Loop, All-Electronic Pixel-Wise Adaptive Imaging System for High Dynamic Range Videography. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2020, 67, 1803-1814.	5.4	10
17	Analog Neuromorphic System Based on Multi Input Floating Gate MOS Neuron Model. , 2019, , .		8
18	Demonstration of intrinsic STDP learning capability in all-2D multi-state MoS <sub>2</sub> memory and its application in modelling neuromorphic speech recognition. <i>2D Materials</i> , 2021, 8, 045031.	4.4	8

#	ARTICLE	IF	CITATIONS
19	A Neuromorphic Proto-Object Based Dynamic Visual Saliency Model With a Hybrid FPGA Implementation. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 580-594.	4.0	7
20	Event-LSTM: An Unsupervised and Asynchronous Learning-Based Representation for Event-Based Data. IEEE Robotics and Automation Letters, 2022, 7, 4678-4685.	5.1	7
21	Biomimetic FPGA-based spatial navigation model with grid cells and place cells. Neural Networks, 2021, 139, 45-63.	5.9	6
22	FPGA Implementation of Particle Filters for Robotic Source Localization. IEEE Access, 2021, 9, 98185-98203.	4.2	5
23	Neuromorphic Time-Multiplexed Reservoir Computing With On-the-Fly Weight Generation for Edge Devices. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 2676-2685.	11.3	4
24	A Biologically Inspired Sound Localisation System Using a Silicon Cochlea Pair. Applied Sciences (Switzerland), 2021, 11, 1519.	2.5	4
25	EvAn: Neuromorphic Event-Based Sparse Anomaly Detection. Frontiers in Neuroscience, 2021, 15, 699003.	2.8	4
26	In-Filter Computing for Designing Ultralight Acoustic Pattern Recognizers. IEEE Internet of Things Journal, 2022, 9, 6095-6106.	8.7	3
27	SAMIR: Sparsity Amplified Iteratively-Reweighted Beamforming for High-Resolution Ultrasound Imaging. , 2019, , .		2
28	FPGA based Compressive Sensing Framework for Video Compression on Edge Devices. , 2020, , .		1
29	Real-Time Object Detection and Localization in Compressive Sensed Video. , 2021, , .		1
30	Neuromorphic Object Tracking Architecture, Based on Compound Eyes, and Implementation on FPGA. , 2018, , .		0