Chetan Singh Thakur

List of Publications by Year
in descending order

30 papers	632 citations	759055 12 h-index	610775 24 g-index
31 all docs	31 docs citations	31 times ranked	825 citing authors

#	Article	IF	Citations
1	In-Filter Computing for Designing Ultralight Acoustic Pattern Recognizers. IEEE Internet of Things Journal, 2022, 9, 6095-6106.	5.5	3
2	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.	7.2	4
3	Hybrid architecture based on two-dimensional memristor crossbar array and CMOS integrated circuit for edge computing. Npj 2D Materials and Applications, 2022, 6, .	3.9	27
4	Event-LSTM: An Unsupervised and Asynchronous Learning-Based Representation for Event-Based Data. IEEE Robotics and Automation Letters, 2022, 7, 4678-4685.	3.3	7
5	FPGA Implementation of Particle Filters for Robotic Source Localization. IEEE Access, 2021, 9, 98185-98203.	2.6	5
6	A Biologically Inspired Sound Localisation System Using a Silicon Cochlea Pair. Applied Sciences (Switzerland), 2021, 11, 1519.	1.3	4
7	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.	2.7	7
8	Biomimetic FPGA-based spatial navigation model with grid cells and place cells. Neural Networks, 2021, 139, 45-63.	3.3	6
9	EvAn: Neuromorphic Event-Based Sparse Anomaly Detection. Frontiers in Neuroscience, 2021, 15, 699003.	1.4	4
10	Demonstration of intrinsic STDP learning capability in all-2D multi-state MoS_2 memory and its application in modelling neuromorphic speech recognition. 2D Materials, 2021, 8, 045031.	2.0	8
11	Real-Time Object Detection and Localization in Compressive Sensed Video. , 2021, , .		1
12	Neuromorphic Fringe Projection Profilometry. IEEE Signal Processing Letters, 2020, 27, 1510-1514.	2.1	12
13	FPGA based Compressive Sensing Framework for Video Compression on Edge Devices. , 2020, , .		1
14	A Closed-Loop, All-Electronic Pixel-Wise Adaptive Imaging System for High Dynamic Range Videography. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 1803-1814.	3.5	10
15	SAMIR: Sparsity Amplified Iteratively-Reweighted Beamforming for High-Resolution Ultrasound Imaging. , 2019, , .		2
16	N-HAR: A Neuromorphic Event-Based Human Activity Recognition System using Memory Surfaces. , 2019, , .		11
17	Low Power, CMOS-MoS2 Memtransistor based Neuromorphic Hybrid Architecture for Wake-Up Systems. Scientific Reports, 2019, 9, 15604.	1.6	16
18	Analog Neuromorphic System Based on Multi Input Floating Gate MOS Neuron Model. , 2019, , .		8

#	Article	IF	Citations
19	A high-performance MoS$_2$ synaptic device with floating gate engineering for neuromorphic computing. 2D Materials, 2019, 6, 045008.	2.0	72
20	Neuromorphic vision: From sensors to event€based algorithms. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2019, 9, e1310.	4.6	15
21	Handheld, low-cost electronic device for rapid, real-time fluorescence-based detection of Hg2+, using aptamer-templated ZnO quantum dots. Sensors and Actuators B: Chemical, 2019, 290, 73-78.	4.0	55
22	An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 1174-1184.	3.5	13
23	Neuromorphic Object Tracking Architecture, Based on Compound Eyes, and Implementation on FPGA. , 2018, , .		0
24	Large-Scale Neuromorphic Spiking Array Processors: A Quest to Mimic the Brain. Frontiers in Neuroscience, 2018, 12, 891.	1.4	177
25	A FPGA Implementation of the CAR-FAC Cochlear Model. Frontiers in Neuroscience, 2018, 12, 198.	1.4	30
26	An FPGA-Based Massively Parallel Neuromorphic Cortex Simulator. Frontiers in Neuroscience, 2018, 12, 213.	1.4	37
27	An Unsupervised Compressed Sensing Algorithm for Multi-Channel Neural Recording and Spike Sorting. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1121-1130.	2.7	16
28	Neuromorphic Hardware Architecture Using the Neural Engineering Framework for Pattern Recognition. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 574-584.	2.7	37
29	Turn Down That Noise: Synaptic Encoding of Afferent SNR in a Single Spiking Neuron. IEEE Transactions on Biomedical Circuits and Systems, 2015, 9, 188-196.	2.7	18
30	FPGA implementation of the CAR Model of the cochlea. , 2014, , .		21