Basabdatta Sen-Bhattacharya

List of Publications by Year
in descending order

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40 papers	428 citations	1039406 9 h-index	794141 19 g-index
42 all docs	42 docs citations	42 times ranked	430 citing authors

#	ARTICLE	IF	CITATIONS
1	In silico Effects of Synaptic Connections in the Visual Thalamocortical Pathway. Frontiers in Medical Technology, 2022, 4, 856412.	1.3	1
2	Foveal-pit inspired filtering of DVS spike response. , 2021, , .		1
3	On- and Off-centre Pathways in a Retino-Geniculate Spiking Neural Network on SpiNNaker**This work is supported by the Science and Engineering Research Board of India (SERB) Core Research Grant CRG/2019/003534, BITS Pilani Institutional Research Grants GOA/ACG/2019-20/Oct/02 and BPGC/RIG/2018-19. TSG is supported by EU grant PCI2019-111826-2 â€œAPROVIS3Dâ€, by Spanish grant from the Ministry of Science and Innovation PID2019-105556GB-C31 â€œNANOMINDâ€•(with support from the) Ti ETOg1 1 0.784314 rgBT /Ov		1
4	A Reduced-Scale Cortical Network with Izhikevich's Neurons on SpiNNaker. , 2021, , .		1
5	Quantifying Synchronization in a Biologically Inspired Neural Network. , 2021, , .		0
6	Phase Entrainment by Periodic Stimuli In Silico: A Quantitative Study. Neurocomputing, 2021, 469, 273-273.	3.5	2
7	The State of Play in Diversity and Inclusion in STEMâ€“A Review of Empirical Evidence, Focusing on Gender. IFAC-PapersOnLine, 2021, 54, 570-575.	0.5	7
8	Sleep Stage Classification using NeuCube on SpiNNaker: a Preliminary Study. , 2020, , .		3
9	Implementing a foveal-pit inspired filter in a Spiking Convolutional Neural Network: a preliminary study. , 2020, , .		2
10	Linking Brainstem Cholinergic Input to Thalamocortical Circuitry. Advances in Intelligent Systems and Computing, 2019, , 375-386.	0.5	1
11	Building a Spiking Neural Network Model of the Basal Ganglia on SpiNNaker. IEEE Transactions on Cognitive and Developmental Systems, 2018, 10, 823-836.	2.6	24
12	Interpretable Fuzzy Rule-Based Systems for Classification of Multi-class EEG Data. , 2018, , .		1
13	Profiling a Many-core Neuromorphic Platform. , 2017, , .		1
14	A Spiking Neural Network Model of the Lateral Geniculate Nucleus on the SpiNNaker Machine. Frontiers in Neuroscience, 2017, 11, 454.	1.4	9
15	A Neural Mass Computational Framework to Study Synaptic Mechanisms Underlying Alpha and Theta Rhythms. Springer Series in Bio-/neuroinformatics, 2017, , 405-427.	0.1	3
16	Causal Role of Thalamic Interneurons in Brain State Transitions: A Study Using a Neural Mass Model Implementing Synaptic Kinetics. Frontiers in Computational Neuroscience, 2016, 10, 115.	1.2	15
17	Nonlinear Origin of SSVEP Spectraâ€”A Combined Experimental and Modeling Study. Frontiers in Computational Neuroscience, 2016, 10, 129.	1.2	62
18	Introduction to special issue on â€˜Recent Computing Paradigms, Network Protocols, and Applicationsâ€™. Innovations in Systems and Software Engineering, 2016, 12, 161-162.	1.6	0

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19	A Robust Evolutionary Optimisation Approach for Parameterising a Neural Mass Model. Lecture Notes in Computer Science, 2016, , 225-234.	1.0	0
20	Data-point and feature selection of motor imagery EEG signals for neural classification of cognitive tasks in car-driving. , 2015, , .		2
21	EEG classification to determine the degree of pleasure levels in touch-perception of human subjects. , 2015, , .		9
22	Adaptive Parameterized AdaBoost Algorithm with application in EEG Motor Imagery Classification. , 2015, , .		1
23	EEG source localization by memory network analysis of subjects engaged in perceiving emotions from facial expressions. , 2015, , .		7
24	Engineering a thalamo-cortico-thalamic circuit on SpiNNaker: a preliminary study toward modeling sleep and wakefulness. Frontiers in Neural Circuits, 2014, 8, 46.	1.4	7
25	Studying the effects of thalamic interneurons in a thalamocortical neural mass model. BMC Neuroscience, 2014, 15, .	0.8	4
26	Neural Circuit Models and Neuropathological Oscillations. , 2014, , 673-702.		3
27	Spectral and Non-linear Analysis of Thalamocortical Neural Mass Model Oscillatory Dynamics. , 2014, , 87-112.		4
28	Combined study of time-series bifurcation and power spectral behaviour of a thalamo-cortico-thalamic neural mass model. BMC Neuroscience, 2013, 14, .	0.8	0
29	Model-based bifurcation and power spectral analyses of thalamocortical alpha rhythm slowing in Alzheimer's Disease. Neurocomputing, 2013, 115, 11-22.	3.5	33
30	Implementing the cellular mechanisms of synaptic transmission in a neural mass model of the thalamo-cortical circuitry. Frontiers in Computational Neuroscience, 2013, 7, 81.	1.2	10
31	Assessing retino-geniculo-cortical connectivities in Alzheimer's Disease with a neural mass model. , 2011, , .		3
32	A thalamoâ€“corticoâ€“thalamic neural mass model to study alpha rhythms in Alzheimerâ€™s disease. Neural Networks, 2011, 24, 631-645.	3.3	105
33	Alpha and Theta Rhythm Abnormality in Alzheimerâ€™s Disease: A Study Using a Computational Model. Advances in Experimental Medicine and Biology, 2011, 718, 57-73.	0.8	48
34	Using a virtual cortical module implementing a neural field model to modulate brain rhythms in Parkinsonâ€™s disease. Frontiers in Neuroscience, 2010, 4, .	1.4	13
35	Intra- and inter-connectivity influences on event related changes in thalamocortical alpha rhythms. , 2010, , .		2
36	Past, Present and Future of Brain Stimulation. Mathematical Modelling of Natural Phenomena, 2010, 5, 185-207.	0.9	9

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37	Biologically Inspired Means for Rank-Order Encoding Images: A Quantitative Analysis. IEEE Transactions on Neural Networks, 2010, 21, 1087-1099.	4.8	12
38	Thalamocortical circuitry and alpha rhythm slowing: An empirical study based on a classic computational model. , 2010, , .		7
39	Evaluating rank-order code performance using a biologically-derived retinal model. , 2009, , .		4
40	A biologically inspired algorithm to deal with filter-overlap in retinal models. BMC Neuroscience, 2009, 10, .	0.8	3