Jose Manuel FerrÃ¡ndez

List of Publications by Year
in descending order

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125	1,117	516710	477307
papers	citations	16	29
		h-index	g-index

147	147	147	1158
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stress Detection Using Wearable Physiological and Sociometric Sensors. International Journal of Neural Systems, 2017, 27, 1650041.	5.2	132
2	Artificial intelligence within the interplay between natural and artificial computation: Advances in data science, trends and applications. Neurocomputing, 2020, 410, 237-270.	5.9	121
3	Mental tasks-based brainâ€“robot interface. Robotics and Autonomous Systems, 2010, 58, 1238-1245.	5.1	79
4	EEG-Based Detection of Braking Intention Under Different Car Driving Conditions. Frontiers in Neuroinformatics, 2018, 12, 29.	2.5	50
5	Population coding in spike trains of simultaneously recorded retinal ganglion cells. Brain Research, 2000, 887, 222-229.	2.2	47
6	Parkinson Disease Detection from Speech Articulation Neuromechanics. Frontiers in Neuroinformatics, 2017, 11, 56.	2.5	43
7	Neurolight: A Deep Learning Neural Interface for Cortical Visual Prostheses. International Journal of Neural Systems, 2020, 30, 2050045.	5.2	38
8	DATA-MEAns: An open source tool for the classification and management of neural ensemble recordings. Journal of Neuroscience Methods, 2005, 148, 137-146.	2.5	28
9	Real-time facial expression recognition using smoothed deep neural network ensemble. Integrated Computer-Aided Engineering, 2020, 28, 97-111.	4.6	28
10	Optimization of Real-Time EEG Artifact Removal and Emotion Estimation for Human-Robot Interaction Applications. Frontiers in Computational Neuroscience, 2019, 13, 80.	2.1	26
11	Affective Robot Story-Telling Human-Robot Interaction: Exploratory Real-Time Emotion Estimation Analysis Using Facial Expressions and Physiological Signals. IEEE Access, 2020, 8, 134051-134066.	4.2	24
12	An efficient and expandable hardware implementation of multilayer cellular neural networks. Neurocomputing, 2013, 114, 54-62.	5.9	22
13	FPGA-based architecture for the real-time computation of 2-D convolution with large kernel size. Journal of Systems Architecture, 2012, 58, 277-285.	4.3	21
14	Identifying Suitable Brain Regions and Trial Size Segmentation for Positive/Negative Emotion Recognition. International Journal of Neural Systems, 2019, 29, 1850044.	5.2	20
15	Real-Time Multi-Modal Estimation of Dynamically Evoked Emotions Using EEG, Heart Rate and Galvanic Skin Response. International Journal of Neural Systems, 2020, 30, 2050013.	5.2	20
16	Evaluation of stereo correspondence algorithms and their implementation on FPGA. Journal of Systems Architecture, 2014, 60, 22-31.	4.3	19
17	A retinomorphic architecture based on discrete-time cellular neural networks using reconfigurable computing. Neurocomputing, 2008, 71, 766-775.	5.9	16
18	Automatic Tuning of a Retina Model for a Cortical Visual Neuroprosthesis Using a Multi-Objective Optimization Genetic Algorithm. International Journal of Neural Systems, 2016, 26, 1650021.	5.2	16

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19	Time-frequency representations in speech perception. Neurocomputing, 2009, 72, 820-830.	5.9	15
20	Monitoring amyotrophic lateral sclerosis by biomechanical modeling of speech production. Neurocomputing, 2015, 151, 130-138.	5.9	15
21	RetinaStudio: A bioinspired framework to encode visual information. Neurocomputing, 2013, 114, 45-53.	5.9	14
22	Brain and Body Emotional Responses: Multimodal Approximation for Valence Classification. Sensors, 2020, 20, 313.	3.8	14
23	Hand-based Interface for Augmented Reality. , 2007, , .		13
24	A 3D Convolutional Neural Network to Model Retinal Ganglion Cellâ€™s Responses to Light Patterns in Mice. International Journal of Neural Systems, 2018, 28, 1850043.	5.2	13
25	FPGA-Based Platform for Image and Video Processing Embedded Systems. , 2007, , .		11
26	Implementation of a discrete cellular neuron model (DT-CNN) architecture on FPGA. , 2005, , .		10
27	Neuromorphic detection of speech dynamics. Neurocomputing, 2011, 74, 1191-1202.	5.9	10
28	Training biological neural cultures: Towards Hebbian learning. Neurocomputing, 2013, 114, 3-8.	5.9	10
29	Real-Time Emotional Recognition for Sociable Robotics Based on Deep Neural Networks Ensemble. Lecture Notes in Computer Science, 2019, , 171-180.	1.3	10
30	Cortical Asymmetries and Connectivity Patterns in the Valence Dimension of the Emotional Brain. International Journal of Neural Systems, 2020, 30, 2050021.	5.2	10
31	A Customizable Multi-channel Stimulator for Cortical Neuroprosthesis. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4707-10.	0.5	9
32	Effect of salvia Officinalis L. and Rosmarinus Officinalis L. leaves extracts on anxiety and neural activity. Bioinformation, 2019, 15, 172-178.	0.5	9
33	FPGA implementation of an augmented reality application for visually impaired people. , 0, , .		8
34	Simulating the phonological auditory cortex from vowel representation spaces to categories. Neurocomputing, 2013, 114, 63-75.	5.9	8
35	On the Automatic Tuning of a Retina Model by Using a Multi-objective Optimization Genetic Algorithm. Lecture Notes in Computer Science, 2015, , 108-118.	1.3	8
36	Neural representation of different 3D architectural images: An EEG study. Integrated Computer-Aided Engineering, 2019, 26, 197-205.	4.6	8

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37	Relating Facial Myoelectric Activity to Speech Formants. Lecture Notes in Computer Science, 2017, , 520-530.	1.3	8
38	Study of the contrast processing in the early visual system using a neuromorphic retinal architecture. Neurocomputing, 2009, 72, 928-935.	5.9	7
39	A clientâ€“server architecture for remotely controlling a robot using a closed-loop system with a biological neuroprocessor. Robotics and Autonomous Systems, 2010, 58, 1223-1230.	5.1	7
40	Modeling the role of fixational eye movements in real-world scenes. Neurocomputing, 2015, 151, 78-84.	5.9	7
41	Application of electroencephalographic techniques to the study of visual impact of renewable energies. Journal of Environmental Management, 2017, 200, 484-489.	7.8	7
42	The neural concert of vision. Neurocomputing, 2009, 72, 814-819.	5.9	6
43	V-Proportion: A method based on the Voronoi diagram to study spatial relations in neuronal mosaics of the retina. Neurocomputing, 2010, 74, 418-427.	5.9	6
44	Skin Color Detection for Real Time Mobile Applications. , 2006, , .		5
45	A biological neuroprocessor for robotic guidance using a center of area method. Neurocomputing, 2011, 74, 1229-1236.	5.9	5
46	Social and collaborative robotics. Robotics and Autonomous Systems, 2013, 61, 659-660.	5.1	5
47	Toward an Improvement of the Analysis of Neural Coding. Frontiers in Neuroinformatics, 2017, 11, 77.	2.5	5
48	Intelligent robotics and neuroscience. Robotics and Autonomous Systems, 2010, 58, 1221-1222.	5.1	4
49	Reprint of: V-Proportion: A method based on the Voronoi diagram to study spatial relations in neuronal mosaics of the retina. Neurocomputing, 2011, 74, 1165-1174.	5.9	4
50	Non-stationary Group-Level Connectivity Analysis for Enhanced Interpretability of Oddball Tasks. Frontiers in Neuroscience, 2020, 14, 446.	2.8	4
51	Parkinsonâ€™s Disease Monitoring from Phonation Biomechanics. Lecture Notes in Computer Science, 2015, , 238-248.	1.3	4
52	Bio-inspired Systems in Speech Perception: An overview and a study case. , 2006, , .		3
53	Discrete-Time Cellular Neural Networks in FPGA. , 2007, , .		3
54	Low rate stochastic strategy for cochlear implants. Neurocomputing, 2009, 72, 936-943.	5.9	3

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55	Searching for semantics in the retinal code. Neurocomputing, 2009, 72, 806-813.	5.9	3
56	Intelligent monitoring for people assistance and safety. Expert Systems, 2014, 31, 343-344.	4.5	3
57	A practical evaluation of the performance of the Impulse CoDeveloper HLS tool for implementing large-kernel 2-D filters. Journal of Real-Time Image Processing, 2014, 9, 263-279.	3.5	3
58	A Bio-inspired Architecture for Cognitive Audio. Lecture Notes in Computer Science, 2007, , 132-142.	1.3	3
59	A Hybrid Robotic Control System Using Neuroblastoma Cultures. Lecture Notes in Computer Science, 2010, , 245-253.	1.3	3
60	An open-source real-time system for remote robotic control using Neuroblastoma cultures. , 2010, , .		2
61	New perspectives on the application of expert systems. Expert Systems, 2011, 28, 285-287.	4.5	2
62	Implementation of a CNN-based retinomorphic model on a high performance reconfigurable computer. Neurocomputing, 2011, 74, 1290-1297.	5.9	2
63	Bio-inspired population-based meta-heuristics for problem solving. Natural Computing, 2017, 16, 187-188.	3.0	2
64	Towards a Deep Learning Model of Retina: Retinal Neural Encoding of Color Flash Patterns. Lecture Notes in Computer Science, 2017, , 464-472.	1.3	2
65	Setting the Parameters for an Accurate EEG (Electroencephalography)-Based Emotion Recognition System. Lecture Notes in Computer Science, 2017, , 265-273.	1.3	2
66	Biologically inspired vision systems in robotics. International Journal of Advanced Robotic Systems, 2017, 14, 172988141774594.	2.1	2
67	Application of Koniocortex-Like Networks to Cardiac Arrhythmias Classification. Lecture Notes in Computer Science, 2019, , 264-273.	1.3	2
68	Model and hardware emulation of the first synapse of the retina using Discrete-Time Cellular Neural Networks. , 2009, , .		1
69	Neural computation with cellular cultures. Natural Computing, 2012, 11, 175-183.	3.0	1
70	Solving problems with natural computing. Natural Computing, 2012, 11, 129-130.	3.0	1
71	Response calibration in neuroblastoma cultures over multielectrode array. Neurocomputing, 2012, 75, 98-105.	5.9	1
72	Induced functional connectivity in hippocampal cultures using Hebbian electrical stimulation. Neurocomputing, 2015, 151, 4-10.	5.9	1

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73	A scalable CNN architecture and its application to short exposure stellar images processing on a HPRC. Neurocomputing, 2015, 151, 91-100.	5.9	1
74	Intelligence in educational environments. Expert Systems, 2017, 34, e12216.	4.5	1
75	Evaluating Instability on Phonation in Parkinsonâ€™s Disease and Aging Speech. Lecture Notes in Computer Science, 2019, , 340-351.	1.3	1
76	Neurolight Alpha: Interfacing Computational Neural Models for Stimulus Modulation in Cortical Visual Neuroprostheses. Lecture Notes in Computer Science, 2019, , 108-119.	1.3	1
77	Group Differences in Time-Frequency Relevant Patterns for User-Independent BCI Applications. Lecture Notes in Computer Science, 2019, , 138-145.	1.3	1
78	On the Use of Lateralization for Lightweight and Accurate Methodology for EEG Real Time Emotion Estimation Using Gaussian-Process Classifier. Lecture Notes in Computer Science, 2019, , 191-201.	1.3	1
79	Brushstrokes of the Emotional Brain: Cortical Asymmetries for Valence Dimension. Lecture Notes in Computer Science, 2019, , 232-243.	1.3	1
80	Autonomic Modulation During a Cognitive Task Using a Wearable Device. Lecture Notes in Computer Science, 2019, , 69-77.	1.3	1
81	Exploring the Physiological Basis of Emotional HRI Using a BCI Interface. Lecture Notes in Computer Science, 2017, , 274-285.	1.3	1
82	Detection of Speech Dynamics by Neuromorphic Units. Lecture Notes in Computer Science, 2009, , 67-78.	1.3	1
83	Neuromorphic Detection of Vowel Representation Spaces. Lecture Notes in Computer Science, 2011, , 1-11.	1.3	1
84	Neural Spike Activation in Hippocampal Cultures Using Hebbian Electrical Stimulation. Lecture Notes in Computer Science, 2013, , 37-47.	1.3	1
85	Temporal Dynamics of Human Emotions: An Study Combining Images and Music. Lecture Notes in Computer Science, 2017, , 245-253.	1.3	1
86	Autism Spectrum Disorder (ASD): Emotional Intervention Protocol. Lecture Notes in Computer Science, 2022, , 310-322.	1.3	1
87	EEG Signals inÂMental Fatigue Detection: A Comparing Study ofÂMachine Learning Technics VS Deep Learning. Lecture Notes in Computer Science, 2022, , 625-633.	1.3	1
88	FPGA implementation of an area-time efficient FIR filter core using a self-clocked approach. , 2005, , .		0
89	Development of a Cortical Visual Neuroprostheses for the Blind. , 2006, , .		0
90	Neural computation as adaptive association process in cortical sensorial maps. Natural Computing, 2009, 8, 739-755.	3.0	0

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91	Non-conventional computing paradigms. Natural Computing, 2009, 8, 643-644.	3.0	0
92	Acceleration of a DWT-Based Algorithm for Short Exposure Stellar Images Processing on a HPRC Platform. , 2010, , .		0
93	From phenomenological data and sensations to cognition. Neurocomputing, 2011, 74, 1157-1158.	5.9	0
94	Novel vehicle for exploring networks dynamics in excitable tissue. Neurocomputing, 2013, 114, 9-14.	5.9	0
95	Searching for the interplay between neuroscience and computation. Neurocomputing, 2013, 114, 1-2.	5.9	0
96	Non conventional computing and constraint optimization. Natural Computing, 2014, 13, 129-130.	3.0	0
97	IWINAC 2013 special section: editorial on intelligent systems for neural disorders and emotional state identification. Expert Systems, 2015, 32, 674-675.	4.5	0
98	FPGA Translation of Functional Hippocampal Cultures Structures Using Cellular Neural Networks. Lecture Notes in Computer Science, 2015, , 228-237.	1.3	0
99	Development of a cortical visual neuroprosthesis for the blind: Replacing the role of the retina. , 2015, , .		0
100	Introduction. International Journal of Neural Systems, 2016, 26, 1602001.	5.2	0
101	Introduction. International Journal of Neural Systems, 2019, 29, 1802001.	5.2	0
102	Assessing an Application of Spontaneous Stressed Speech - Emotions Portal. Lecture Notes in Computer Science, 2019, , 149-160.	1.3	0
103	Frequency variation analysis in neuronal cultures for stimulus response characterization. Neural Computing and Applications, 2020, 32, 5027-5032.	5.6	0
104	Introduction. International Journal of Neural Systems, 2020, 30, 2002001.	5.2	0
105	Neural Computation links Neuroscience: a synergistic approach. Neural Computing and Applications, 2020, 32, 13173-13174.	5.6	0
106	IJNS: 30 Years of Breakthrough Multidisciplinarity, Rigor, and Excellence in the Knowledge Limits. International Journal of Neural Systems, 2020, 30, 2003001.	5.2	0
107	Iwinac 2017: Assistive intelligence for the elderly. Expert Systems, 2020, 37, e12535.	4.5	0
108	Bioinspired Auditory Model for Vowel Recognition. Electronics (Switzerland), 2021, 10, 2304.	3.1	0

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109	Spatio-temporal Computation with Neural Sensorial Maps. Lecture Notes in Computer Science, 2009, , 79-86.	1.3	0
110	Activity Modulation in Human Neuroblastoma Cultured Cells: Towards a Biological Neuroprocessor. Lecture Notes in Computer Science, 2009, , 142-154.	1.3	0
111	Analysis of Retinal Ganglion Cells Population Responses Using Information Theory and Artificial Neural Networks: Towards Functional Cell Identification. Lecture Notes in Computer Science, 2009, , 121-131.	1.3	0
112	Modeling Short-Time Parsing of Speech Features in Neocortical Structures. Lecture Notes in Computer Science, 2010, , 159-168.	1.3	0
113	An Optimized Framework to Model Vertebrate Retinas. Lecture Notes in Computer Science, 2011, , 185-194.	1.3	0
114	An Expandable Hardware Platform for Implementation of CNN-Based Applications. Lecture Notes in Computer Science, 2011, , 195-204.	1.3	0
115	Monitoring Neurological Disease in Phonation. Lecture Notes in Computer Science, 2011, , 136-147.	1.3	0
116	Tools for Controlled Experiments and Calibration on Living Tissues Cultures. Lecture Notes in Computer Science, 2011, , 472-481.	1.3	0
117	Long Term Modulation and Control of Neuronal Firing in Excitable Tissue Using Optogenetics. Lecture Notes in Computer Science, 2011, , 266-273.	1.3	0
118	High-Level Hardware Description of a CNN-Based Algorithm for Short Exposure Stellar Images Processing on a HPRC. Lecture Notes in Computer Science, 2013, , 375-384.	1.3	0
119	Characterization of Speech from Amyotrophic Lateral Sclerosis by Neuromorphic Processing. Lecture Notes in Computer Science, 2013, , 212-224.	1.3	0
120	Neural Recognition of Real and Computer-Designed Architectural Images. Lecture Notes in Computer Science, 2015, , 451-458.	1.3	0
121	Vowel Articulation Distortion in Parkinsonâ€™s Disease. Lecture Notes in Computer Science, 2017, , 21-31.	1.3	0
122	Spatial Resolution of EEG Source Reconstruction in Assessing Brain Connectivity Analysis. Lecture Notes in Computer Science, 2017, , 77-86.	1.3	0
123	Distinguishing Aging Clusters and Mobile Devices by Hand-Wrist Articulation: A Case of Study. Lecture Notes in Computer Science, 2019, , 11-21.	1.3	0
124	Neuromorphic Speech Processing. , 0, , 447-473.		0
125	<scp>IWINAC</scp>'2019: Intelligent systems for cognitive training and assessment. Expert Systems, 2022, 39, .	4.5	0