

Jose Manuel Ferrández

List of Publications by Year in descending order

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125
papers

1,117
citations

516710

16
h-index

477307

29
g-index

147
all docs

147
docs citations

147
times ranked

1158
citing authors

#	ARTICLE	IF	CITATIONS
1	<scp>IWINAC</scp>'2019: Intelligent systems for cognitive training and assessment. Expert Systems, 2022, 39, .	4.5	0
2	Autism Spectrum Disorder (ASD): Emotional Intervention Protocol. Lecture Notes in Computer Science, 2022, , 310-322.	1.3	1
3	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
4	Bioinspired Auditory Model for Vowel Recognition. Electronics (Switzerland), 2021, 10, 2304.	3.1	0
5	Frequency variation analysis in neuronal cultures for stimulus response characterization. Neural Computing and Applications, 2020, 32, 5027-5032.	5.6	0
6	Introduction. International Journal of Neural Systems, 2020, 30, 2002001.	5.2	0
7	Real-time facial expression recognition using smoothed deep neural network ensemble. Integrated Computer-Aided Engineering, 2020, 28, 97-111.	4.6	28
8	Neurolight: A Deep Learning Neural Interface for Cortical Visual Prostheses. International Journal of Neural Systems, 2020, 30, 2050045.	5.2	38
9	Non-stationary Group-Level Connectivity Analysis for Enhanced Interpretability of Oddball Tasks. Frontiers in Neuroscience, 2020, 14, 446.	2.8	4
10	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
11	Cortical Asymmetries and Connectivity Patterns in the Valence Dimension of the Emotional Brain. International Journal of Neural Systems, 2020, 30, 2050021.	5.2	10
12	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
13	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
14	Neural Computation links Neuroscience: a synergistic approach. Neural Computing and Applications, 2020, 32, 13173-13174.	5.6	0
15	IJNS: 30 Years of Breakthrough Multidisciplinarity, Rigor, and Excellence in the Knowledge Limits. International Journal of Neural Systems, 2020, 30, 2003001.	5.2	0
16	Brain and Body Emotional Responses: Multimodal Approximation for Valence Classification. Sensors, 2020, 20, 313.	3.8	14
17	Iwinac 2017: Assistive intelligence for the elderly. Expert Systems, 2020, 37, e12535.	4.5	0
18	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

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19	Introduction. International Journal of Neural Systems, 2019, 29, 1802001.	5.2	0
20	Assessing an Application of Spontaneous Stressed Speech - Emotions Portal. Lecture Notes in Computer Science, 2019, , 149-160.	1.3	0
21	Evaluating Instability on Phonation in Parkinson's Disease and Aging Speech. Lecture Notes in Computer Science, 2019, , 340-351.	1.3	1
22	NeuroLight Alpha: Interfacing Computational Neural Models for Stimulus Modulation in Cortical Visual Neuroprostheses. Lecture Notes in Computer Science, 2019, , 108-119.	1.3	1
23	Application of Koniocortex-Like Networks to Cardiac Arrhythmias Classification. Lecture Notes in Computer Science, 2019, , 264-273.	1.3	2
24	Real-Time Emotional Recognition for Sociable Robotics Based on Deep Neural Networks Ensemble. Lecture Notes in Computer Science, 2019, , 171-180.	1.3	10
25	Group Differences in Time-Frequency Relevant Patterns for User-Independent BCI Applications. Lecture Notes in Computer Science, 2019, , 138-145.	1.3	1
26	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
27	Neural representation of different 3D architectural images: An EEG study. Integrated Computer-Aided Engineering, 2019, 26, 197-205.	4.6	8
28	Identifying Suitable Brain Regions and Trial Size Segmentation for Positive/Negative Emotion Recognition. International Journal of Neural Systems, 2019, 29, 1850044.	5.2	20
29	Brushstrokes of the Emotional Brain: Cortical Asymmetries for Valence Dimension. Lecture Notes in Computer Science, 2019, , 232-243.	1.3	1
30	Autonomic Modulation During a Cognitive Task Using a Wearable Device. Lecture Notes in Computer Science, 2019, , 69-77.	1.3	1
31	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
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	A 3D Convolutional Neural Network to Model Retinal Ganglion Cell's Responses to Light Patterns in Mice. International Journal of Neural Systems, 2018, 28, 1850043.	5.2	13
34	EEG-Based Detection of Braking Intention Under Different Car Driving Conditions. Frontiers in Neuroinformatics, 2018, 12, 29.	2.5	50
35	Bio-inspired population-based meta-heuristics for problem solving. Natural Computing, 2017, 16, 187-188.	3.0	2
36	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

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37	Application of electroencephalographic techniques to the study of visual impact of renewable energies. <i>Journal of Environmental Management</i> , 2017, 200, 484-489.	7.8	7
38	Setting the Parameters for an Accurate EEG (Electroencephalography)-Based Emotion Recognition System. <i>Lecture Notes in Computer Science</i> , 2017, , 265-273.	1.3	2
39	Intelligence in educational environments. <i>Expert Systems</i> , 2017, 34, e12216.	4.5	1
40	Stress Detection Using Wearable Physiological and Sociometric Sensors. <i>International Journal of Neural Systems</i> , 2017, 27, 1650041.	5.2	132
41	Biologically inspired vision systems in robotics. <i>International Journal of Advanced Robotic Systems</i> , 2017, 14, 172988141774594.	2.1	2
42	Parkinson Disease Detection from Speech Articulation Neuromechanics. <i>Frontiers in Neuroinformatics</i> , 2017, 11, 56.	2.5	43
43	Toward an Improvement of the Analysis of Neural Coding. <i>Frontiers in Neuroinformatics</i> , 2017, 11, 77.	2.5	5
44	Exploring the Physiological Basis of Emotional HRI Using a BCI Interface. <i>Lecture Notes in Computer Science</i> , 2017, , 274-285.	1.3	1
45	Relating Facial Myoelectric Activity to Speech Formants. <i>Lecture Notes in Computer Science</i> , 2017, , 520-530.	1.3	8
46	Vowel Articulation Distortion in Parkinson's Disease. <i>Lecture Notes in Computer Science</i> , 2017, , 21-31.	1.3	0
47	Spatial Resolution of EEG Source Reconstruction in Assessing Brain Connectivity Analysis. <i>Lecture Notes in Computer Science</i> , 2017, , 77-86.	1.3	0
48	Temporal Dynamics of Human Emotions: An Study Combining Images and Music. <i>Lecture Notes in Computer Science</i> , 2017, , 245-253.	1.3	1
49	Introduction. <i>International Journal of Neural Systems</i> , 2016, 26, 1602001.	5.2	0
50	Automatic Tuning of a Retina Model for a Cortical Visual Neuroprosthesis Using a Multi-Objective Optimization Genetic Algorithm. <i>International Journal of Neural Systems</i> , 2016, 26, 1650021.	5.2	16
51	IWINAC 2013 special section: editorial on intelligent systems for neural disorders and emotional state identification. <i>Expert Systems</i> , 2015, 32, 674-675.	4.5	0
52	FPGA Translation of Functional Hippocampal Cultures Structures Using Cellular Neural Networks. <i>Lecture Notes in Computer Science</i> , 2015, , 228-237.	1.3	0
53	Development of a cortical visual neuroprosthesis for the blind: Replacing the role of the retina. , 2015, , .		0
54	On the Automatic Tuning of a Retina Model by Using a Multi-objective Optimization Genetic Algorithm. <i>Lecture Notes in Computer Science</i> , 2015, , 108-118.	1.3	8

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55	Induced functional connectivity in hippocampal cultures using Hebbian electrical stimulation. Neurocomputing, 2015, 151, 4-10.	5.9	1
56	Monitoring amyotrophic lateral sclerosis by biomechanical modeling of speech production. Neurocomputing, 2015, 151, 130-138.	5.9	15
57	Modeling the role of fixational eye movements in real-world scenes. Neurocomputing, 2015, 151, 78-84.	5.9	7
58	A scalable CNN architecture and its application to short exposure stellar images processing on a HPRC. Neurocomputing, 2015, 151, 91-100.	5.9	1
59	Parkinson's Disease Monitoring from Phonation Biomechanics. Lecture Notes in Computer Science, 2015, , 238-248.	1.3	4
60	Neural Recognition of Real and Computer-Designed Architectural Images. Lecture Notes in Computer Science, 2015, , 451-458.	1.3	0
61	Intelligent monitoring for people assistance and safety. Expert Systems, 2014, 31, 343-344.	4.5	3
62	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
63	Evaluation of stereo correspondence algorithms and their implementation on FPGA. Journal of Systems Architecture, 2014, 60, 22-31.	4.3	19
64	Non conventional computing and constraint optimization. Natural Computing, 2014, 13, 129-130.	3.0	0
65	Simulating the phonological auditory cortex from vowel representation spaces to categories. Neurocomputing, 2013, 114, 63-75.	5.9	8
66	Training biological neural cultures: Towards Hebbian learning. Neurocomputing, 2013, 114, 3-8.	5.9	10
67	Social and collaborative robotics. Robotics and Autonomous Systems, 2013, 61, 659-660.	5.1	5
68	RetinaStudio: A bioinspired framework to encode visual information. Neurocomputing, 2013, 114, 45-53.	5.9	14
69	Novel vehicle for exploring networks dynamics in excitable tissue. Neurocomputing, 2013, 114, 9-14.	5.9	0
70	An efficient and expandable hardware implementation of multilayer cellular neural networks. Neurocomputing, 2013, 114, 54-62.	5.9	22
71	Searching for the interplay between neuroscience and computation. Neurocomputing, 2013, 114, 1-2.	5.9	0
72	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

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73	Characterization of Speech from Amyotrophic Lateral Sclerosis by Neuromorphic Processing. Lecture Notes in Computer Science, 2013, , 212-224.	1.3	0
74	Neural Spike Activation in Hippocampal Cultures Using Hebbian Electrical Stimulation. Lecture Notes in Computer Science, 2013, , 37-47.	1.3	1
75	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
76	Neural computation with cellular cultures. Natural Computing, 2012, 11, 175-183.	3.0	1
77	Solving problems with natural computing. Natural Computing, 2012, 11, 129-130.	3.0	1
78	Response calibration in neuroblastoma cultures over multielectrode array. Neurocomputing, 2012, 75, 98-105.	5.9	1
79	New perspectives on the application of expert systems. Expert Systems, 2011, 28, 285-287.	4.5	2
80	A biological neuroprocessor for robotic guidance using a center of area method. Neurocomputing, 2011, 74, 1229-1236.	5.9	5
81	Implementation of a CNN-based retinomorphic model on a high performance reconfigurable computer. Neurocomputing, 2011, 74, 1290-1297.	5.9	2
82	From phenomenological data and sensations to cognition. Neurocomputing, 2011, 74, 1157-1158.	5.9	0
83	Neuromorphic detection of speech dynamics. Neurocomputing, 2011, 74, 1191-1202.	5.9	10
84	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
85	An Optimized Framework to Model Vertebrate Retinas. Lecture Notes in Computer Science, 2011, , 185-194.	1.3	0
86	An Expandable Hardware Platform for Implementation of CNN-Based Applications. Lecture Notes in Computer Science, 2011, , 195-204.	1.3	0
87	Neuromorphic Detection of Vowel Representation Spaces. Lecture Notes in Computer Science, 2011, , 1-11.	1.3	1
88	Monitoring Neurological Disease in Phonation. Lecture Notes in Computer Science, 2011, , 136-147.	1.3	0
89	Tools for Controlled Experiments and Calibration on Living Tissues Cultures. Lecture Notes in Computer Science, 2011, , 472-481.	1.3	0
90	Long Term Modulation and Control of Neuronal Firing in Excitable Tissue Using Optogenetics. Lecture Notes in Computer Science, 2011, , 266-273.	1.3	0

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91	Intelligent robotics and neuroscience. Robotics and Autonomous Systems, 2010, 58, 1221-1222.	5.1	4
92	Mental tasks-based brain-robot interface. Robotics and Autonomous Systems, 2010, 58, 1238-1245.	5.1	79
93	A client-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
94	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
95	An open-source real-time system for remote robotic control using Neuroblastoma cultures. , 2010, , .		2
96	Acceleration of a DWT-Based Algorithm for Short Exposure Stellar Images Processing on a HPRC Platform. , 2010, , .		0
97	A Hybrid Robotic Control System Using Neuroblastoma Cultures. Lecture Notes in Computer Science, 2010, , 245-253.	1.3	3
98	Modeling Short-Time Parsing of Speech Features in Neocortical Structures. Lecture Notes in Computer Science, 2010, , 159-168.	1.3	0
99	Model and hardware emulation of the first synapse of the retina using Discrete-Time Cellular Neural Networks. , 2009, , .		1
100	Time-frequency representations in speech perception. Neurocomputing, 2009, 72, 820-830.	5.9	15
101	Study of the contrast processing in the early visual system using a neuromorphic retinal architecture. Neurocomputing, 2009, 72, 928-935.	5.9	7
102	Low rate stochastic strategy for cochlear implants. Neurocomputing, 2009, 72, 936-943.	5.9	3
103	The neural concert of vision. Neurocomputing, 2009, 72, 814-819.	5.9	6
104	Searching for semantics in the retinal code. Neurocomputing, 2009, 72, 806-813.	5.9	3
105	Neural computation as adaptive association process in cortical sensorial maps. Natural Computing, 2009, 8, 739-755.	3.0	0
106	Non-conventional computing paradigms. Natural Computing, 2009, 8, 643-644.	3.0	0
107	Detection of Speech Dynamics by Neuromorphic Units. Lecture Notes in Computer Science, 2009, , 67-78.	1.3	1
108	Spatio-temporal Computation with Neural Sensorial Maps. Lecture Notes in Computer Science, 2009, , 79-86.	1.3	0

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109	Activity Modulation in Human Neuroblastoma Cultured Cells: Towards a Biological Neuroprocessor. Lecture Notes in Computer Science, 2009, , 142-154.	1.3	0
110	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
111	A retinomorph architecture based on discrete-time cellular neural networks using reconfigurable computing. Neurocomputing, 2008, 71, 766-775.	5.9	16
112	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
113	FPGA-Based Platform for Image and Video Processing Embedded Systems. , 2007, , .		11
114	Hand-based Interface for Augmented Reality. , 2007, , .		13
115	Discrete-Time Cellular Neural Networks in FPGA. , 2007, , .		3
116	A Bio-inspired Architecture for Cognitive Audio. Lecture Notes in Computer Science, 2007, , 132-142.	1.3	3
117	Bio-inspired Systems in Speech Perception: An overview and a study case. , 2006, , .		3
118	Development of a Cortical Visual Neuroprostheses for the Blind. , 2006, , .		0
119	Skin Color Detection for Real Time Mobile Applications. , 2006, , .		5
120	Implementation of a discrete cellular neuron model (DT-CNN) architecture on FPGA. , 2005, , .		10
121	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
122	FPGA implementation of an area-time efficient FIR filter core using a self-clocked approach. , 2005, , .		0
123	Population coding in spike trains of simultaneously recorded retinal ganglion cells. Brain Research, 2000, 887, 222-229.	2.2	47
124	FPGA implementation of an augmented reality application for visually impaired people. , 0, , .		8
125	Neuromorphic Speech Processing. , 0, , 447-473.		0