Mounir Boukadoum

List of Publications by Year
in descending order

108 papers	1,597 citations	331670 21 h-index	361022 35 g-index
109 all docs	109 docs citations	109 times ranked	1445 citing authors

#	ARTICLE	IF	CITATIONS
1	Maintainability defects detection and correction: a multi-objective approach. Automated Software Engineering, 2013, 20, 47-79.	2.9	120
2	Mechanisms Gating the Flow of Information in the Cortex: What They Might Look Like and What Their Uses may be. Frontiers in Computational Neuroscience, 2011, 5, 1.	2.1	108
3	A Fully Embedded Adaptive Real-Time Hand Gesture Classifier Leveraging HD-sEMG and Deep Learning. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 232-243.	4.0	94
4	A Bidirectional Heteroassociative Memory for Binary and Grey-Level Patterns. IEEE Transactions on Neural Networks, 2006, 17, 385-396.	4.2	69
5	Search-based model transformation by example. Software and Systems Modeling, 2012, 11, 209-226.	2.7	67
6	A Review of Neurotransmitters Sensing Methods for Neuro-Engineering Research. Applied Sciences (Switzerland), 2019, 9, 4719.	2.5	60
7	Model Transformation as an Optimization Problem. Lecture Notes in Computer Science, 2008, , 159-173.	1.3	55
8	Hybrid Discrete Wavelet Transform and Gabor Filter Banks Processing for Features Extraction from Biomedical Images. Journal of Medical Engineering, 2013, 2013, 1-13.	1.1	55
9	Particle swarm classification: A survey and positioning. Pattern Recognition, 2013, 46, 2028-2044.	8.1	51
10	Biomedical image denoising using variational mode decomposition. , 2014, , .		47
11	New approach for automatic classification of Alzheimer's disease, mild cognitive impairment and healthy brain magnetic resonance images. Healthcare Technology Letters, 2014, 1, 32-36.	3.3	44
12	A weighted bio-signal denoising approach using empirical mode decomposition. Biomedical Engineering Letters, 2015, 5, 131-139.	4.1	38
13	A Multihit Time-to-Digital Converter Architecture on FPGA. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 530-540.	4.7	37
14	Offline and Online Scheduling Algorithms for Energy Harvesting RSUs in VANETs. IEEE Transactions on Vehicular Technology, 2018, 67, 6370-6382.	6.3	36
15	A nonlinear dynamic artificial neural network model of memory. New Ideas in Psychology, 2008, 26, 252-277.	1.9	33
16	Intuitive real-time control strategy for high-density myoelectric hand prosthesis using deep and transfer learning. Scientific Reports, 2021, 11, 11275.	3.3	33
17	Alzheimerâ€™s Disease Detection in Brain Magnetic Resonance Images Using Multiscale Fractal Analysis. ISRN Radiology, 2013, 2013, 1-7.	1.2	26
18	A Sequential Dynamic Heteroassociative Memory for Multistep Pattern Recognition and One-to-Many Association. IEEE Transactions on Neural Networks, 2006, 17, 59-68.	4.2	24

#	Article	IF	Citations
19	A Survey on Computer-Aided Diagnosis of Brain Disorders through MRI Based on Machine Learning and Data Mining Methodologies with an Emphasis on Alzheimer Disease Diagnosis and the Contribution of the Multimodal Fusion. Applied Sciences (Switzerland), 2020, 10, 1894.	2.5	24
20	Improved global-best particle swarm optimization algorithm with mixed-attribute data classification capability. Applied Soft Computing Journal, 2014, 21, 554-567.	7.2	22
21	BAM Learning of Nonlinearly Separable Tasks by Using an Asymmetrical Output Function and Reinforcement Learning. IEEE Transactions on Neural Networks, 2009, 20, 1281-1292.	4.2	21
22	Comparison of Two CMOS Front-End Transimpedance Amplifiers for Optical Biosensors. IEEE Sensors Journal, 2013, 13, 657-663.	4.7	21
23	Intelligent Ensemble Forecasting System of Stock Market Fluctuations Based on Symetric and Asymetric Wavelet Functions. Fluctuation and Noise Letters, 2015, 14, 1550033.	1.5	21
24	Computer-Aided Diagnosis System of Alzheimer's Disease Based on Multimodal Fusion: Tissue Quantification Based on the Hybrid Fuzzy-Genetic-Possibilistic Model and Discriminative Classification Based on the SVDD Model. Brain Sciences, 2019, 9, 289.	2.3	21
25	Example-based model-transformation testing. Automated Software Engineering, 2011, 18, 199-224.	2.9	20
26	Operant conditioning: a minimal components requirement in artificial spiking neurons designed for bio-inspired robot's controller. Frontiers in Neurorobotics, 2014, 8, 21.	2.8	19
27	Automated detection of circinate exudates in retina digital images using empirical mode decomposition and the entropy and uniformity of the intrinsic mode functions. Biomedizinische Technik, 2014, 59, 357-66.	0.8	19
28	Pseudorandom Stimuli Generation for Testing Time-to-Digital Converters on an FPGA. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 2209-2215.	4.7	17
29	Computational Analyses of Arteriovenous Malformations in Neuroimaging. Journal of Neuroimaging, 2015, 25, 354-360.	2.0	17
30	AI-SIMCOG: a simulator for spiking neurons and multiple animats' behaviours. Neural Computing and Applications, 2009, 18, 431-446.	5.6	16
31	Exploring Information Categories and Artificial Neural Networks Numerical Algorithms in S&P500 Trend Prediction. International Journal of Strategic Decision Sciences, 2014, 5, 76-94.	0.0	16
32	On the Timing Uncertainty in Delay-Line-based Time Measurement Applications Targeting FPGAs. , 2007, , .		15
33	Example-Based Sequence Diagrams to Colored Petri Nets Transformation Using Heuristic Search. Lecture Notes in Computer Science, 2010, , 156-172.	1.3	14
34	Classical conditioning in different temporal constraints: an STDP learning rule for robots controlled by spiking neural networks. Adaptive Behavior, 2012, 20, 257-272.	1.9	14
35	A Supervised Classification System of Financial Data Based on Wavelet Packet and Neural Networks. International Journal of Strategic Decision Sciences, 2013, 4, 72-84.	0.0	13
36	Detrended fluctuation analysis of brain hemisphere magnetic resonnance images to detect cerebral arteriovenous malformations. , 2014, , .		12

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37	Particle Swarm Classification for High Dimensional Data Sets. , 2010, , .		10
38	Hybrid discrete wavelet transform and Gabor filter banks processing for mammogram features extraction. , 2011, , .		10
39	Encoding Static and Temporal Patterns with a Bidirectional Heteroassociative Memory. Journal of Applied Mathematics, 2011, 2011, 1-34.	0.9	10
40	Automatic brain MR images diagnosis based on edge fractal dimension and spectral energy signature. , 2012, 2012, 6243-6.		10
41	Miniaturized FDDA and CMOS Based Potentiostat for Bio-Applications. Sensors, 2017, 17, 810.	3.8	10
42	Automatic detection of Alzheimer disease in brain magnetic resonance images using fractal features. , 2013, , .		9
43	FROM ADAPTATION-GUIDED RETRIEVAL TO REUSE-GUIDED RETRIEVAL: APPLICATION TO CASE RETRIEVAL NET MEMORY MODEL. International Journal of Information Technology and Decision Making, 2013, 12, 757-787.	3.9	9
44	RF-LNA circuit synthesis using an array of artificial neural networks with constrained inputs. , 2015, , .		9
45	A NEW DIGITAL SCAN CONVERSION ARCHITECTURE FOR ULTRASONIC IMAGING SYSTEMS. Journal of Circuits, Systems and Computers, 2005, 14, 367-382.	1.5	8
46	RF-LNA circuit synthesis by genetic algorithm-specified artificial neural network. , 2014, , .		8
47	Scheduling Energy Harvesting Roadside Units in Vehicular Ad Hoc Networks. , 2016, , .		8
48	Aptamer-Modified Ultrastable Gold Nanoparticles for Dopamine Detection. IEEE Sensors Journal, 2021, 21, 2517-2525.	4.7	8
49	An Investigation of the Physical Forces Leading to Thrombosis Disruption by Cavitation. Journal of Thrombosis and Thrombolysis, 2005, 20, 27-32.	2.1	7
50	DWT and RT-based approach for feature extraction and classification of mammograms with SVM. , 2011, , .		7
51	Robotic implementation of classical and Operant Conditioning as a single STDP learning process. , 2016, , .		7
52	Hybrid cosine and Radon transform-based processing for digital mammogram feature extraction and classification with SVM. , 2011, 2011, 5104-7.		6
53	Fractal-based arteriovenous malformations detection in brain magnetic resonance images. , 2014, , .		6
54	Combined partial differential equation filtering and particle swarm optimization for noisy biomedical image segmentation. , 2016, , .		6

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55	FPGA minimal components SKAN model for classical and operant conditioning. , 2016, , .		6
56	A Particle Swarm Optimization Approach for Reuse Guided Case Retrieval. International Journal of Software Science and Computational Intelligence, 2014, 6, 16-30.	3.0	6
57	Autonomous sensor system for deep-sea pipeline monitoring. , 2013, , .		5
58	Brain-inspired pattern classification with memristive neural network using the Hodgkin-Huxley neuron. , 2016, , .		5
59	An accurate automatic system for distinguishing neuropathy and healthy electromyography signals. , 2017, , .		5
60	Improved Electromyography Signal Modeling for Myopathy Detection. , 2018, , .		5
61	An application of the empirical mode decomposition to brain magnetic resonance images classification. , 2013, , .		4
62	Habituation: a non-associative learning rule design for spiking neurons and an autonomous mobile robots implementation. Bioinspiration and Biomimetics, 2013, 8, 016007.	2.9	4
63	Adjusted empirical mode decomposition with improved performance for signal modeling and prediction. , 2014, , .		4
64	Chaotic Liquid State Machine. International Journal of Cognitive Informatics and Natural Intelligence, 2015, 9, 1-20.	0.4	4
65	Single SNN Architecture for Classical and Operant Conditioning using Reinforcement Learning. International Journal of Cognitive Informatics and Natural Intelligence, 2017, 11, 1-24.	0.4	4
66	Wireless Sensor Network and Irrigation System to Monitor Wheat Growth under Drought Stress. , 2021, , .		4
67	MDG-SAT: an automated methodology for efficient safety checking. International Journal of Critical Computer-Based Systems, 2012, 3, 4.	0.1	3
68	A novel wireless ring-shaped multi-site pulse oximeter. , 2016, , .		3
69	Microfluidic Spectrophotometer for Neurotransmitter Detection Based on Gold Nanoparticles: Preliminary Results. , 2018, 2018, 3854-3857.		3
70	Enhanced Global Best Particle Swarm Classification. International Journal of Software Science and Computational Intelligence, 2014, 6, 1-15.	3.0	3
71	Assessment of a Grism- Based Spectrometer Design for Neurotransmitter Detection. , 2020, , .		3
72	Towards an advanced neurotechnological system: colorimetric sensing with a novel grism-based spectrometer, functionalized gold nanoparticles and a heterogeneous embedded system. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, .	3.4	3

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73	Fractal dimension and high order statistics of spectral energy distribution as features for pathology detection in brain MR images. , 2012, , .		2
74	Real-time CPU-GPU demodulator for the LTE physical layer. , 2016, , .		2
75	EAM: Energy Aware Mobility over wireless sensor networks. , 2017, , .		2
76	HMM/MLP speech recognition system using a novel data clustering approach. , 2017, , .		2
77	Brain Tissues Volumes Assessment by Fuzzy Genetic Optimization Based Possibilistic Clustering: Application to Alzheimer Patients Images. , 2017, , .		2
78	Brain tissue classification of alzheimer disease using partial volume possibilistic modeling: Application to ADNI phantom images. , 2017, , .		2
79	A loop-based neural architecture for structured behavior encoding and decoding. Neural Networks, 2018, 98, 318-336.	5.9	2
80	Fully parallel FPGA Implementation of an Artificial Neural Network Tuned by Genetic Algorithm. , 2018, , .		2
81	Classical and Brain-inspired Neural Networks for Substance Identification and Breast Cancer Detection: The Chaos Challenge. , 2021, , .		2
82	A Particle Swarm Optimization Approach for the Case Retrieval Stage in CBR. , 2011, , 209-222.		2
83	Colorimetric Sensing System for Neurotransmitter Detection Based on Multi-technologies Architecture. , 2021, , .		2
84	A 500 MHz to 6 GHz frequency synthesizer architecture for cognitive radio applications. , 2012, , .		1
85	Lobe asymmetry-based automatic classification of brain magnetic resonance images. , 2013, , .		1
86	Time Frequency noise canceller for an optimized separation of the ECG from low back sEMG signals. , 2014, , .		1
87	Robotic implementation of classical and operant conditioning within a single SNN architecture. , 2016, , .		1
88	Towards code generation for ARM Cortex-M MCUs from SysML activity diagrams. , 2016, , .		1
89	A wide range and high sensitivity four-channel compact electrochemical biosensor for neurotransmitter detection on a microfluidic platform. , 2016, 2016, 5753-5756.		1
90	A comparison of four PDE-spatial denoising systems for molecular images. , 2017, , .		1

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91	Fuzzy clustering optimized with genetic algorithms: Application for hybrid speech recognition system. , 2017, , .		1
92	Dealing With Noise and Partial Volume Effects in Alzheimer Disease Brain Tissue Classification by a Fuzzy-Possibilistic Modeling Based on Fuzzy-Genetic Initialization. International Journal of Software Innovation, 2019, 7, 119-143.	0.4	1
93	Tissue segmentation by fuzzy clustering technique: case study on Alzheimer's disease. , 2018, , .		1
94	Fractals in Neuroimaging. Springer Series in Computational Neuroscience, 2016, , 295-309.	0.3	1
95	End-to-End Dialogue Generation Using a Single Encoder and a Decoder Cascade With a Multidimension Attention Mechanism. IEEE Transactions on Neural Networks and Learning Systems, 2022, PP, 1-11.	11.3	1
96	SAT based model checking for MDG models. , 2010, , .		0
97	A high-speed, low input current CMOS integrated front end for multi-spectral photodiode arrays. , 2011, , .		0
98	Special issue on IEEE-NEWCAS 2010–2011. Analog Integrated Circuits and Signal Processing, 2012, 73, 661-662.	1.4	0
99	Information fusion and S&P500 trend prediction. , 2013, , .		0
100	Wavelet compression inspired implementation for high performances and low complexity ECG removal in wireless sEMG electrodes. , 2013, , .		0
101	Enhanced Particle Swarm Optimization algorithm with resue guided retrieval capabilities. , 2014, , .		0
102	Adaptive block SSA based ANC implementation for high performances ECG removal from sEMG signals. , 2014, , .		0
103	Formal modeling, verification and implementation of a train control system. , 2015, , .		0
104	Microfluidic H-filter Cell Modeling for Robust Purification of Gold Nanoparticles. , 2018, , .		0
105	Dealing With Noise and Partial Volume Effects in Alzheimer Disease Brain Tissue Classification by a Fuzzy-Possibilistic Modeling Based on Fuzzy-Genetic Initialization. , 2021, , 267-294.		0
106	Diagnosis of Auditory Pathologies with Hidden Markov Models. Lecture Notes in Computer Science, 2017, , 118-133.	1.3	0
107	Molecular sensing system based on multi-technologies architecture. , 2022, , .		0
108	Design of an Integrated Micro-Viscometer for Monitoring Engine Oil. Sensors, 2022, 22, 5157.	3.8	0