

Igor Aizenberg

List of Publications by Year in descending order

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44
papers

923
citations

759233

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docs citations

47
times ranked

474
citing authors

#	ARTICLE	IF	CITATIONS
1	Multilayer Feedforward Neural Network Based on Multi-valued Neurons (MLMVN) and a Backpropagation Learning Algorithm. <i>Soft Computing</i> , 2007, 11, 169-183.	3.6	181
2	Complex-Valued Neural Networks with Multi-Valued Neurons. <i>Studies in Computational Intelligence</i> , 2011, , .	0.9	144
3	Blur Identification by Multilayer Neural Network Based on Multivalued Neurons. <i>IEEE Transactions on Neural Networks</i> , 2008, 19, 883-898.	4.2	142
4	Multilayer Neural Network with Multi-Valued Neurons in time series forecasting of oil production. <i>Neurocomputing</i> , 2016, 175, 980-989.	5.9	90
5	A modified learning algorithm for the multilayer neural network with multi-valued neurons based on the complex QR decomposition. <i>Soft Computing</i> , 2012, 16, 563-575.	3.6	47
6	A Feedforward Neural Network based on Multi-Valued Neurons. , 2005, , 599-612.		39
7	Periodic Activation Function and a Modified Learning Algorithm for the Multivalued Neuron. <i>IEEE Transactions on Neural Networks</i> , 2010, 21, 1939-1949.	4.2	33
8	Solving the XOR and parity N problems using a single universal binary neuron. <i>Soft Computing</i> , 2007, 12, 215-222.	3.6	28
9	MLMVN With Soft Margins Learning. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2014, 25, 1632-1644.	11.3	28
10	Temporal classification of Drosophila segmentation gene expression patterns by the multi-valued neural recognition method. <i>Mathematical Biosciences</i> , 2002, 176, 145-159.	1.9	22
11	Image processing using cellular neural networks based on multi-valued and universal binary neurons. <i>Journal of Signal Processing Systems</i> , 2002, 32, 169-188.	1.0	15
12	Machine Learning-Based Monitoring of DC-DC Converters in Photovoltaic Applications. <i>Algorithms</i> , 2022, 15, 74.	2.1	14
13	A Neural Network Classifier with Multi-Valued Neurons for Analog Circuit Fault Diagnosis. <i>Electronics (Switzerland)</i> , 2021, 10, 349.	3.1	13
14	Multiple-Valued Logic and Complex-Valued Neural Networks. <i>Studies in Fuzziness and Soft Computing</i> , 2017, , 153-171.	0.8	10
15	Image Recognition using MLMVN and Frequency Domain Features. , 2018, , .		9
16	Failure Prevention and Malfunction Localization in Underground Medium Voltage Cables. <i>Energies</i> , 2021, 14, 85.	3.1	9
17	Hebbian and error-correction learning for complex-valued neurons. <i>Soft Computing</i> , 2013, 17, 265-273.	3.6	8
18	Solving Selected Classification Problems in Bioinformatics Using Multilayer Neural Network Based on Multi-Valued Neurons (MLMVN). <i>Lecture Notes in Computer Science</i> , 2007, , 874-883.	1.3	7

#	ARTICLE	IF	CITATIONS
19	Why We Need Complex-Valued Neural Networks?. Studies in Computational Intelligence, 2011, , 1-53.	0.9	7
20	Learning nonlinearly separable mod k addition problem using a single multi-valued neuron with a periodic activation function. , 2010, , .		6
21	Recognition of Blurred Images Using Multilayer Neural Network Based on Multi-valued Neurons. , 2011, , .		6
22	System identification using FRA and a modified MLMVN with arbitrary complex-valued inputs. , 2016, , .		6
23	Cloud Datacenter Workload Prediction Using Complex-Valued Neural Networks. , 2018, , .		6
24	Towards Quantum Computing Algorithms for Datacenter Workload Predictions. , 2018, , .		6
25	Classification of blurred textures using multilayer neural network based on multi-valued neurons. , 2011, , .		5
26	GPU simulator of multilayer neural network based on multi-valued neurons. , 2016, , .		5
27	Analysis of EEG Using Multilayer Neural Network with Multi-Valued Neurons. , 2018, , .		4
28	The Genetic Code as a Multiple-Valued Function and Its Implementation Using Multilayer Neural Network Based on Multi-Valued Neurons. Multiple-Valued Logic (ISMVL), Proceedings of the International Symposium on, 2007, , .	0.0	3
29	Complex-Valued Neurons with Phase-Dependent Activation Functions. Lecture Notes in Computer Science, 2010, , 3-10.	1.3	3
30	Intelligent edge enhancement using multilayer neural network based on multi-valued neurons. Proceedings of SPIE, 2011, , .	0.8	2
31	Batch linear least squares-based learning algorithm for MLMVN with soft margins. , 2014, , .		2
32	MLMVN as an intelligent image filter. , 2017, , .		2
33	Convolutional Neural Network with Multi-Valued Neurons. , 2020, , .		2
34	Impulse Noise Filtering using MLMVN. , 2020, , .		2
35	A MLMVN with Arbitrary Complex-Valued Inputs and a Hybrid Testability Approach for the Extraction of Lumped Models Using FRA. Journal of Artificial Intelligence and Soft Computing Research, 2019, 9, 5-19.	4.3	2
36	Learning in networks: Complex-valued neurons, pruning, and rule extraction. , 2008, , .		1

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37	Learning of the Non-threshold Functions of Multiple-Valued Logic by a Single Multi-valued Neuron with a Periodic Activation Function. , 2010, , .		1
38	Intelligent detection of impulse noise using multilayer neural network with multi-valued neurons. Proceedings of SPIE, 2012, , .	0.8	1
39	A modified error-correction learning rule for multilayer neural network with multi-valued neurons. , 2013, , .		1
40	Intelligent Image Filtering using Multilayer Neural Network with Multi-Valued Neurons. IS&T International Symposium on Electronic Imaging, 2016, 28, 1-9.	0.4	1
41	MLMVN in Speckle Noise Filtering. , 2020, , .		1
42	Soft Computing Methods for Prediction of Replication Origins in Caudoviruses. Multiple-Valued Logic (ISMVL), Proceedings of the International Symposium on, 2008, , .	0.0	0
43	On the Projection of k-Valued Non-linearly Separable Problems into m-Valued Linearly Separable Problems. Studies in Computational Intelligence, 2011, , 223-235.	0.9	0
44	Multi-Valued Neurons: Hebbian and Error-Correction Learning. Lecture Notes in Computer Science, 2011, , 33-40.	1.3	0