Jagdish C. Patra

List of Publications by Year
in descending order

116 papers	3,736 citations	218677 26 h-index	155660 55 g-index
116 all docs	116 docs citations	116 times ranked	2639 citing authors

#	Article	IF	Citations
1	Genome-wide inferring gene–phenotype relationship by walking on the heterogeneous network. Bioinformatics, 2010, 26, 1219-1224.	4.1	359
2	Identification of nonlinear dynamic systems using functional link artificial neural networks. IEEE Transactions on Systems, Man, and Cybernetics, 1999, 29, 254-262.	5.0	320
3	A novel ant colony optimization-based maximum power point tracking for photovoltaic systems under partially shaded conditions. Energy and Buildings, 2013, 58, 227-236.	6.7	306
4	Nonlinear dynamic system identification using Chebyshev functional link artificial neural networks. IEEE Transactions on Systems, Man, and Cybernetics, 2002, 32, 505-511.	5.0	273
5	Parameter estimation of solar cells and modules using an improved adaptive differential evolution algorithm. Applied Energy, 2013, 112, 185-193.	10.1	244
6	A functional link artificial neural network for adaptive channel equalization. Signal Processing, 1995, 43, 181-195.	3.7	185
7	A novel DCT domain CRT-based watermarking scheme for image authentication surviving JPEG compression. , 2010, 20, 1597-1611.		168
8	Nonlinear channel equalization for QAM signal constellation using artificial neural networks. IEEE Transactions on Systems, Man, and Cybernetics, 1999, 29, 262-271.	5.0	158
9	Artificial neural network-based nonlinearity estimation of pressure sensors. IEEE Transactions on Instrumentation and Measurement, 1994, 43, 874-881.	4.7	113
10	An intelligent pressure sensor using neural networks. IEEE Transactions on Instrumentation and Measurement, 2000, 49, 829-834.	4.7	100
11	Nonlinear channel equalization for wireless communication systems using Legendre neural networks. Signal Processing, 2009, 89, 2251-2262.	3.7	92
12	Modeling of an intelligent pressure sensor using functional link artificial neural networks. ISA Transactions, 2000, 39, 15-27.	5.7	58
13	Legendre-FLANN-based nonlinear channel equalization in wireless communication system. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	58
14	Development of Laguerre Neural-Network-Based Intelligent Sensors for Wireless Sensor Networks. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 725-734.	4.7	57
15	Integration of multiple data sources to prioritize candidate genes using discounted rating system. BMC Bioinformatics, 2010, 11, S20.	2.6	48
16	A novel enhanced cuckoo search algorithm for contrast enhancement of gray scale images. Applied Soft Computing Journal, 2019, 85, 105749.	7.2	46
17	A novel CRT-based watermarking technique for authentication of multimedia contents. , 2010, 20, 442-453.		44
18	A simple ICA-based digital image watermarking scheme. , 2008, 18, 762-776.		39

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19	Nonlinear dynamic system identification using Legendre neural network. , 2010, , .		39
20	A novel orthogonal PSO algorithm based on orthogonal diagonalization. Swarm and Evolutionary Computation, 2018, 40, 1-23.	8.1	37
21	Neural-Network-Based Robust Linearization and Compensation Technique for Sensors Under Nonlinear Environmental Influences. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 1316-1327.	5.4	36
22	Chebyshev Neural Network-Based Model for Dual-Junction Solar Cells. IEEE Transactions on Energy Conversion, 2011, 26, 132-139.	5.2	36
23	Orthogonal PSO algorithm for economic dispatch of thermal generating units under various power constraints in smart power grid. Applied Soft Computing Journal, 2017, 58, 401-426.	7.2	36
24	Sliding-Window-Based Real-Time Model Order Reduction for Stability Prediction in Smart Grid. IEEE Transactions on Power Systems, 2019, 34, 326-337.	6.5	36
25	Nonlinear channel equalization with QAM signal using Chebyshev artificial neural network. , 0, , .		35
26	Scalable and modular memory-based systolic architectures for discrete Hartley transform. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2006, 53, 1065-1077.	0.1	35
27	Computationally efficient FLANN-based intelligent stock price prediction system. , 2009, , .		33
28	Artificial neural network–based drug design for diabetes mellitus using flavonoids. Journal of Computational Chemistry, 2011, 32, 555-567.	3.3	33
29	Modular interpretation of low altitude aerial images of non-urban environment. , 2014, 26, 127-141.		32
30	An artificial neural network-based smart capacitive pressure sensor. Measurement: Journal of the International Measurement Confederation, 1997, 22, 113-121.	5.0	30
31	Modeling and development of an ANN-based smart pressure sensor in a dynamic environment. Measurement: Journal of the International Measurement Confederation, 1999, 26, 249-262.	5.0	30
32	Intelligent sensors using computationally efficient Chebyshev neural networks. IET Science, Measurement and Technology, 2008, 2, 68-75.	1.6	30
33	User modeling for personalized Web search with self-organizing map. Journal of the Association for Information Science and Technology, 2007, 58, 494-507.	2.6	29
34	An ANN-based smart capacitive pressure sensor in dynamic environment. Sensors and Actuators A: Physical, 2000, 86, 26-38.	4.1	28
35	Neural network–based model for dual–junction solar cells. Progress in Photovoltaics: Research and Applications, 2011, 19, 33-44.	8.1	28
36	Artificial neural networks–based approach to design ARIs using QSAR for diabetes mellitus. Journal of Computational Chemistry, 2009, 30, 2494-2508.	3.3	24

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37	Laguerre neural network-based smart sensors for wireless sensor networks. , 2009, , .		23
38	CRT-based fragile self-recovery watermarking scheme for image authentication and recovery. , 2012, , .		23
39	ANN-based intelligent pressure sensor in noisy environment. Measurement: Journal of the International Measurement Confederation, 1998, 23, 229-238.	5.0	21
40	High-Throughput Memory-Based Architecture for DHT Using a New Convolutional Formulation. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2007, 54, 606-610.	2.2	21
41	Hardware-Efficient Systolic-Like Modular Design for Two-Dimensional Discrete Wavelet Transform. IEEE Transactions on Circuits and Systems II: Express Briefs, 2008, 55, 151-155.	3.0	20
42	Modeling of multi-junction solar cells for estimation of EQE under influence of charged particles using artificial neural networks. Renewable Energy, 2012, 44, 7-16.	8.9	20
43	Multi-gradient PSO algorithm for optimization of multimodal, discontinuous and non-convex fuel cost function of thermal generating units under various power constraints in smart power grid. Energy, 2018, 147, 1070-1091.	8.8	19
44	Functional Link Artificial Neural Network-based disease gene prediction. , 2009, , .		17
45	DCT domain watermarking scheme using Chinese Remainder Theorem for image authentication. , 2010, , .		16
46	Concurrent Error Detection in Bit-Serial Normal Basis Multiplication Over ${\rm GF}(2^{m})$ Using Multiple Parity Prediction Schemes. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2010, 18, 1234-1238.	3.1	15
47	Neural-Network-Based Smart Sensor Framework Operating in a Harsh Environment. Eurasip Journal on Advances in Signal Processing, 2005, 2005, 1.	1.7	14
48	Fully-pipelined efficient architectures for FPGA realization of discrete Hadamard transform. , 2008, , .		14
49	Chebyshev Functional Link Neural Network-based modeling and experimental verification for photovoltaic arrays. , 2012, , .		14
50	Privacy-preserving federated learning for scalable and high data quality computational-intelligence-as-a-service in Society 5.0. Multimedia Tools and Applications, 2022, 81, 25029-25050.	3.9	13
51	Auto-calibration and -compensation of a capacitive pressure sensor using multilayer perceptrons. ISA Transactions, 2000, 39, 175-190.	5.7	12
52	Efficient Systolic Designs for 1- and 2-Dimensional DFT of General Transform-Lengths for High-Speed Wireless Communication Applications. Journal of Signal Processing Systems, 2010, 60, 1-14.	2.1	12
53	Auto-compensation of nonlinear influence of environmental parameters on the sensor characteristics using neural networks. ISA Transactions, 2005, 44, 165-176.	5.7	11
54	An Improved SVD-Based Watermarking Technique for Image and Document Authentication. , 2006, , .		10

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55	Artificial neural network‐based modelling of compensated multi‐crystalline solar‐grade silicon under wide temperature variations. IET Renewable Power Generation, 2016, 10, 1010-1016.	3.1	10
56	Fragile high capacity data hiding in digital images using integer-to-integer DWT and lattice vector quantization. Multimedia Tools and Applications, 2020, 79, 13427-13447.	3.9	9
57	Computer-Aided-Diagnosis as a Service on Decentralized Medical Cloud for Efficient and Rapid Emergency Response Intelligence. New Generation Computing, 2021, 39, 677-700.	3.3	9
58	A post nonlinear geometric algorithm for independent component analysis. , 2005, 15, 276-294.		8
59	Neural networks for gene expression analysis and gene selection from DNA microarray. , 0, , .		8
60	Novel Recursive Solution for Area-Time Efficient Systolization of Discrete Fourier Transform. , 2007, , .		8
61	A constructive unsupervised learning algorithm for clustering binary patterns. , 0, , .		7
62	Design of a virtual shopping mall: some observations. , 2005, , .		7
63	WMicaD: A New Digital Watermarking Technique Using Independent Component Analysis. Eurasip Journal on Advances in Signal Processing, 2007, 2008, .	1.7	7
64	Estimation of dual-junction solar cell characteristics using neural networks. , 2010, , .		7
65	Orthogonal PSO Algorithm for Economic Dispatch of Power under Power Grid Constraints. , 2015, , .		7
66	Improved CRT-based DCT domain watermarking technique with robustness against JPEG compression for digital media authentication. , 2011, , .		6
67	A flann-based controller for maximum power point tracking in PV systems under rapidly changing conditions. , 2012, , .		6
68	Radial basis function implementation of intelligent pressure sensor on field programmable gate array. , 2007, , .		5
69	Robust CRT-based watermarking technique for authentication of image and document. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	5
70	Multi-gradient PSO algorithm for economic dispatch of thermal generating units in smart grid. , 2016, , .		5
71	Artificial Neural Network-Based Modeling for Prediction of Hardness of Austempered Ductile Iron. Communications in Computer and Information Science, 2019, , 405-413.	0.5	5
72	A fast neural network-based detection and tracking of dim moving targets in FLIR imagery. , 0, , .		4

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73	gpICA: A Novel Nonlinear ICA Algorithm Using Geometric Linearization. Eurasip Journal on Advances in Signal Processing, 2006, 2007, 1.	1.7	4
74	Development of Chebyshev neural network-based smart sensors for noisy harsh environment. , 2010, , .		4
75	Field Programmable Gate Array Implementation of a Neural Network-based Intelligent Sensor System. , 2006, , .		3
76	DNA Microarray Data Analysis: Effective Feature Selection for Accurate Cancer Classification. Neural Networks (IJCNN), International Joint Conference on, 2007, , .	0.0	3
77	A new convolutional formulation of discrete cosine transform for systolic implementation. , 2007, , .		3
78	Neural network based drug design for diabetes mellitus using QSAR with 2D and 3D descriptors. , 2010, , .		3
79	Artificial neural network-based model for estimation of EQE of multi-junction solar cells. , 2011, , .		3
80	CRT-based self-recovery watermarking technique for multimedia applications. , 2012, , .		3
81	Location-aware hazardous litter management for smart emergency governance in urban eco-cyber-physical systems. Multimedia Tools and Applications, 2022, , 1-30.	3.9	3
82	Blind image extraction from nonlinear mixtures using MLP-based ICA. , 2003, , .		2
83	A geometric approach to post nonlinear mixture in blind source separation. , 0, , .		2
84	A 2-D Systolic Array for High-Throughput Computation of 2-D Discrete Fourier Transform. , 2006, , .		2
85	Content-based image retrieval using orthogonal moments heuristically. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	2
86	Development of intelligent sensors using Legendre functional-link artificial neural networks. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	2
87	Determination of QSAR of aldose reductase inhibitors using an RBF network. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	2
88	e-MLP-based modeling of high-power PEM fuel cell stacks. , 2011, , .		2
89	Estimation of external quantum efficiency for multi-junction solar cells under influence of charged particles using artificial neural networks. , 2011, , .		2
90	Sport and Technology: The Case of Archery. , 2013, , .		2

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91	Impact of Thermo-Mechanical Stress Due to Probing and Wire Bonding on CUP Devices. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1258-1266.	2.5	2
92	Prediction of Hardness of Austempered Ductile Iron Using Enhanced Multilayer Perceptron Based on Chebyshev Expansion. Communications in Computer and Information Science, 2019, , 414-422.	0.5	2
93	A novel digital image watermarking scheme using blind source separation. , 0, , .		1
94	Fast constructive-covering approach for neural networks. , 0, , .		1
95	Neural network-based analysis of DNA microarray data. , 0, , .		1
96	Equalized orthogonal map-based DNA microarray data analysis for cancer diagnosis. , 2007, , .		1
97	A MLP-SOM Combination to Select Relevant Genes from High-dimensional DNA Microarray Data. , 2007, , .		1
98	Selection of features from protein-protein interaction network for identifying cancer genes. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	1
99	Support vector machine application in drug discovery of aldose reductase inhibitors. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	1
100	An MLP-based face authentication technique robust to orientation. , 2009, , .		1
101	Hermite neural network-based intelligent sensors for harsh environments. , 2009, , .		1
102	An improved SOM-based visualization technique for DNA microarray data analysis. , 2010, , .		1
103	Orthogonal PSO algorithm for solving ramp rate constraints and prohibited operating zones in smart grid applications. , 2015, , .		1
104	Digital Image Watermarking Using Independent Component Analysis. Lecture Notes in Computer Science, 2004, , 364-371.	1.3	1
105	Hierarchical multiple image watermarking for image authentication and ownership verification. , 0, , .		0
106	Neural Network-Based Intelligent Sensor Operating in Harsh Environment. , 0, , .		0
107	Errata to â€œNonlinear Dynamic System Identification Using Chebyshev Functional Link Artificial Neural Networksâ€. IEEE Transactions on Systems, Man, and Cybernetics, 2004, 34, 1627-1627.	5.0	0
108	A New Method to Combine Heterogeneous Data Sources for Candidate Gene Prioritization. , 2009, , .		0

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109	DNA microarray analysis using Equalized Orthogonal Mapping. , 2010, , .		0
110	Prediction of electronic parameters of compensated multi-crystalline solar-grade silicon using artificial neural networks. , 2015, , .		0
111	Orthogonal PSO algorithm for optimal dispatch of power of large-scale thermal generating units in smart power grid under power grid constraints. , 2016, , .		0
112	Hybrid MLP-PSO-based Technique to Predict Process Parameters and Alloying Compositions in ADI for Sustainable Manufacturing. , 2021, , .		0
113	Inverse Modeling of ADI for Prediction of Process Parameters Using PSO-MLP Technique. , 2021, , .		0
114	Hybrid DE-MLP-Based Modeling Technique forÂPrediction ofÂAlloying Element Proportions andÂProcess Parameters. Lecture Notes in Computer Science, 2021, , 574-584.	1.3	0
115	GA-MLP-based Inverse Modeling Technique for Prediction of Process Parameters and Cost Optimization. , 2021, , .		0
116	A Hybrid PSO-MLP-based Inverse Modeling of Manufacturing Process: Case Study with ADI Process. , 2021, , .		0