Witold Pedrycz

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/11996785/publications.pdf

Version: 2024-02-01

97 papers	6,242 citations	87723 38 h-index	69108 77 g-index
99 all docs	99 docs citations	99 times ranked	2852 citing authors

#	Article	IF	Citations
1	Why triangular membership functions?. Fuzzy Sets and Systems, 1994, 64, 21-30.	1.6	699
2	A review of soft consensus models in a fuzzy environment. Information Fusion, 2014, 17, 4-13.	11.7	562
3	An identification algorithm in fuzzy relational systems. Fuzzy Sets and Systems, 1984, 13, 153-167.	1.6	516
4	Genetic learning of fuzzy cognitive maps. Fuzzy Sets and Systems, 2005, 153, 371-401.	1.6	416
5	An Optimization of Allocation of Information Granularity in the Interpretation of Data Structures: Toward Granular Fuzzy Clustering. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 582-590.	5.5	197
6	Building consensus in group decision making with an allocation of information granularity. Fuzzy Sets and Systems, 2014, 255, 115-127.	1.6	196
7	On identification in fuzzy systems and its applications in control problems. Fuzzy Sets and Systems, 1981, 6, 73-83.	1.6	179
8	Numerical and applicational aspects of fuzzy relational equations. Fuzzy Sets and Systems, 1983, 11, 1-18.	1.6	176
9	Triangular fuzzy decision-theoretic rough sets. International Journal of Approximate Reasoning, 2013, 54, 1087-1106.	1.9	166
10	Numerical and Linguistic Prediction of Time Series With the Use of Fuzzy Cognitive Maps. IEEE Transactions on Fuzzy Systems, 2008, 16, 61-72.	6.5	158
11	Polynomial neural networks architecture: analysis and design. Computers and Electrical Engineering, 2003, 29, 703-725.	3.0	148
12	Identification of fuzzy systems by means of an auto-tuning algorithm and its application to nonlinear systems. Fuzzy Sets and Systems, 2000, 115, 205-230.	1.6	147
13	The design of self-organizing Polynomial Neural Networks. Information Sciences, 2002, 141, 237-258.	4.0	143
14	Fuzzy relational equations with generalized connectives and their applications. Fuzzy Sets and Systems, 1983, 10, 185-201.	1.6	122
15	Granulating linguistic information in decision making under consensus and consistency. Expert Systems With Applications, 2018, 99, 83-92.	4.4	107
16	Consensus mechanism with maximum-return modifications and minimum-cost feedback: A perspective of game theory. European Journal of Operational Research, 2020, 287, 546-559.	3.5	104
17	A divide and conquer method for learning large Fuzzy Cognitive Maps. Fuzzy Sets and Systems, 2010, 161, 2515-2532.	1.6	89
18	Cluster-Centric Fuzzy Modeling. IEEE Transactions on Fuzzy Systems, 2014, 22, 1585-1597.	6.5	88

#	Article	IF	Citations
19	The modeling and prediction of time series based on synergy of high-order fuzzy cognitive map and fuzzy c-means clustering. Knowledge-Based Systems, 2014, 70, 242-255.	4.0	81
20	Identification of fuzzy models using a successive tuning method with a variant identification ratio. Fuzzy Sets and Systems, 2008, 159, 2873-2889.	1.6	79
21	A Development of Fuzzy Encoding and Decoding Through Fuzzy Clustering. IEEE Transactions on Instrumentation and Measurement, 2008, 57, 829-837.	2.4	79
22	Hybrid identification in fuzzy-neural networks. Fuzzy Sets and Systems, 2003, 138, 399-426.	1.6	77
23	Design of Fuzzy Cognitive Maps for Modeling Time Series. IEEE Transactions on Fuzzy Systems, 2016, 24, 120-130.	6.5	76
24	The design of cognitive maps: A study in synergy of granular computing and evolutionary optimization. Expert Systems With Applications, 2010, 37, 7288-7294.	4.4	74
25	Data-driven Nonlinear Hebbian Learning method for Fuzzy Cognitive Maps. , 2008, , .		73
26	Approximate solutions of fuzzy relational equations. Fuzzy Sets and Systems, 1988, 28, 183-202.	1.6	66
27	The Development of Incremental Models. IEEE Transactions on Fuzzy Systems, 2007, 15, 507-518.	6.5	66
28	Learning of Fuzzy Cognitive Maps Using Density Estimate. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 900-912.	5.5	65
29	Granular Data Description: Designing Ellipsoidal Information Granules. IEEE Transactions on Cybernetics, 2017, 47, 4475-4484.	6.2	59
30	Hesitant Fuzzy Maclaurin Symmetric Mean Operators and Its Application to Multiple-Attribute Decision Making. International Journal of Fuzzy Systems, 2015, 17, 509-520.	2.3	57
31	From Fuzzy Cognitive Maps to Granular Cognitive Maps. IEEE Transactions on Fuzzy Systems, 2014, 22, 859-869.	6.5	54
32	Fuzzy Polynomial Neuron-Based Self-Organizing Neural Networks. International Journal of General Systems, 2003, 32, 237-250.	1.2	51
33	Fuzzy cognitive maps in the modeling of granular time series. Knowledge-Based Systems, 2017, 115, 110-122.	4.0	48
34	Expert-Based and Computational Methods for Developing Fuzzy Cognitive Maps. Studies in Fuzziness and Soft Computing, 2010, , 23-41.	0.6	45
35	Linguistic Distribution and Priority-Based Approximation to Linguistic Preference Relations With Flexible Linguistic Expressions in Decision Making. IEEE Transactions on Cybernetics, 2021, 51, 649-659.	6.2	45
36	Consistency and consensus-driven models to personalize individual semantics of linguistic terms for supporting group decision making with distribution linguistic preference relations. Knowledge-Based Systems, 2020, 189, 105078.	4.0	44

#	Article	IF	Citations
37	Estimating incomplete information in group decision making: A framework of granular computing. Applied Soft Computing Journal, 2020, 86, 105930.	4.1	43
38	A Competent Memetic Algorithm for Learning Fuzzy Cognitive Maps. IEEE Transactions on Fuzzy Systems, 2015, 23, 2397-2411.	6.5	41
39	Granular Encoders and Decoders: A Study in Processing Information Granules. IEEE Transactions on Fuzzy Systems, 2017, 25, 1115-1126.	6.5	41
40	Fuzzy vector quantization with the particle swarm optimization: A study in fuzzy granulationâ€“degranulation information processing. Signal Processing, 2007, 87, 2061-2074.	2.1	39
41	An axiomatic approach to approximation-consistency of triangular fuzzy reciprocal preference relations. Fuzzy Sets and Systems, 2017, 322, 1-18.	1.6	39
42	Multiobjective and multiattribute decision making in a fuzzy environment and their power engineering applications. Information Sciences, 2016, 361-362, 100-119.	4.0	36
43	Parallel Learning of Large Fuzzy Cognitive Maps. Neural Networks (IJCNN), International Joint Conference on, 2007, , .	0.0	35
44	Self-organizing polynomial neural networks based on polynomial and fuzzy polynomial neurons: analysis and design. Fuzzy Sets and Systems, 2004, 142, 163-198.	1.6	33
45	Hybrid fuzzy set-based polynomial neural networks and their development with the aid of genetic optimization and information granulation. Applied Soft Computing Journal, 2009, 9, 1068-1089.	4.1	33
46	Granular Representation of Data: A Design of Families of Ïµ-Information Granules. IEEE Transactions on Fuzzy Systems, 2018, 26, 2107-2119.	6.5	32
47	Structural and parametric design of fuzzy inference systems using hierarchical fair competition-based parallel genetic algorithms and information granulation. International Journal of Approximate Reasoning, 2008, 49, 631-648.	1.9	31
48	Fuzzy Radial Basis Function Neural Networks with information granulation and its parallel genetic optimization. Fuzzy Sets and Systems, 2014, 237, 96-117.	1.6	30
49	Maximum Fuzzy Consensus Feedback Mechanism With Minimum Cost and Private Interest in Group Decision-Making. IEEE Transactions on Fuzzy Systems, 2021, 29, 2689-2700.	6.5	28
50	Efficiency evaluation with regret-rejoice cross-efficiency DEA models under the distributed linguistic environment. Computers and Industrial Engineering, 2022, 169, 108281.	3.4	28
51	HYBRID FUZZY POLYNOMIAL NEURAL NETWORKS. International Journal of Uncertainty, Fuzziness and Knowlege-Based Systems, 2002, 10, 257-280.	0.9	27
52	Flexibility Degree of Fuzzy Numbers and its Implication to a Group-Decision-Making Model. IEEE Transactions on Cybernetics, 2019, 49, 4054-4065.	6.2	25
53	Multi-layer hybrid fuzzy polynomial neural networks: a design in the framework of computational intelligence. Neurocomputing, 2005, 64, 397-431.	3.5	24
54	Evolutionary design of hybrid self-organizing fuzzy polynomial neural networks with the aid of information granulation. Expert Systems With Applications, 2007, 33, 830-846.	4.4	23

#	Article	IF	Citations
55	A Gradient-Descent-Based Approach for Transparent Linguistic Interface Generation in Fuzzy Models. IEEE Transactions on Systems, Man, and Cybernetics, 2010, 40, 1219-1230.	5.5	21
56	Genetic optimization-driven multi-layer hybrid fuzzy neural networks. Simulation Modelling Practice and Theory, 2006, 14, 597-613.	2.2	20
57	The Learning of Fuzzy Cognitive Maps With Noisy Data: A Rapid and Robust Learning Method With Maximum Entropy. IEEE Transactions on Cybernetics, 2021, 51, 2080-2092.	6.2	17
58	Hybrid identification of fuzzy rule-based models. International Journal of Intelligent Systems, 2002, 17, 77.	3.3	16
59	Relevancy of fuzzy models. Information Sciences, 1990, 52, 285-302.	4.0	15
60	Implicit rule-based fuzzy-neural networks using the identification algorithm of GA hybrid scheme based on information granulation. Advanced Engineering Informatics, 2002, 16, 247-263.	4.0	15
61	Genetic Optimization of Fuzzy Polynomial Neural Networks. IEEE Transactions on Industrial Electronics, 2007, 54, 2219-2238.	5.2	15
62	Identification of fuzzy relation models using hierarchical fair competition-based parallel genetic algorithms and information granulation. Applied Mathematical Modelling, 2009, 33, 2791-2807.	2.2	13
63	Hybrid fuzzy polynomial neural networks with the aid of weighted fuzzy clustering method and fuzzy polynomial neurons. Applied Intelligence, 2017, 46, 487-508.	3.3	13
64	Efficient mining product-based fuzzy association rules through central limit theorem. Applied Soft Computing Journal, 2018, 63, 235-248.	4.1	13
65	Fast and Effective Learning for Fuzzy Cognitive Maps: A Method Based on Solving Constrained Convex Optimization Problems. IEEE Transactions on Fuzzy Systems, 2020, 28, 2958-2971.	6.5	12
66	Hybrid fuzzy multiple SVM classifier through feature fusion based on convolution neural networks and its practical applications. Expert Systems With Applications, 2022, 202, 117392.	4.4	12
67	An Introduction to Computing with Fuzzy Sets. Intelligent Systems Reference Library, 2021, , .	1.0	11
68	A Linguistic Information Granulation Model and Its Penalty Function-Based Co-Evolutionary PSO Solution Approach for Supporting GDM with Distributed Linguistic Preference Relations. Information Fusion, 2022, 77, 118-132.	11.7	11
69	PROCESSING OF FUZZY NUMBERS BY FUZZY RELATION EQUATIONS. Kybernetes, 1986, 15, 43-47.	1.2	9
70	Robust Multi-Linear Fuzzy SVR Designed With the Aid of Fuzzy C-Means Clustering Based on Insensitive Data Information. IEEE Access, 2020, 8, 184997-185011.	2.6	9
71	Fuzzy Relation-Based Neural Networks and Their Hybrid Identification. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 2522-2537.	2.4	8
72	A genetic approach to modeling fuzzy systems based on information granulation and successive generation-based evolution method. Simulation Modelling Practice and Theory, 2007, 15, 1128-1145.	2.2	7

#	Article	IF	Citations
73	Structural developments of fuzzy systems with the aid of information granulation. Simulation Modelling Practice and Theory, 2007, 15, 1292-1309.	2.2	7
74	Improving Consensus in Group Decision Making with Intuitionistic Reciprocal Preference Relations: A Granular Computing Approach. , 2018, , .		7
75	On the suitability of fuzzy models: an evaluation through fuzzy integrals. International Journal of Man-Machine Studies, 1986, 24, 141-151.	0.7	6
76	The design of self-organizing neural networks based on PNs and FPNs with the aid of genetic optimization and extended GMDH method. International Journal of Approximate Reasoning, 2006, 43, 26-58.	1.9	6
77	Group Decision Making Based on Flexibility Degree of Fuzzy Numbers Under a Confidence Level. IEEE Transactions on Fuzzy Systems, 2021, 29, 1640-1653.	6.5	6
78	Designing of higher order information granules through clustering heterogeneous granular data. Applied Soft Computing Journal, 2021, 112, 107820.	4.1	6
79	Modeling of the ship steady turning motion based on multiblocks of fuzzy cognitive maps. Applied Ocean Research, 2021, 110, 102604.	1.8	5
80	Identification of Fuzzy Rule-Based Models With Output Space Knowledge Guidance. IEEE Transactions on Fuzzy Systems, 2021, 29, 3504-3518.	6.5	4
81	Granular Cognitive Maps reconstruction. , 2014, , .		3
82	A Granular Consensus Approach With Minimum Adjustment for Multi-criteria Group Decision Making. , 2020, , .		3
83	Genetically Optimized Hybrid Fuzzy Neural Networks Based on Simplified Fuzzy Inference Rules and Polynomial Neurons. Lecture Notes in Computer Science, 2005, , 798-803.	1.0	2
84	Fuzzy relational structures: Learning alternatives for fuzzy modeling. , 2013, , .		2
85	Associations Among Information Granules and Their Optimization in Granulation-Degranulation Mechanism of Granular Computing. International Journal of Fuzzy Logic and Intelligent Systems, 2013, 13, 245-253.	0.6	2
86	Information Granulation-Based Multi-layer Hybrid Fuzzy Neural Networks: Analysis and Design. Lecture Notes in Computer Science, 2004, , 188-195.	1.0	2
87	Optimization of Fuzzy Systems Based on Fuzzy Set Using Genetic Optimization and Information Granulation. Lecture Notes in Computer Science, 2005, , 316-327.	1.0	1
88	Optimization of Information Granulation-Oriented Fuzzy Set Model Using Hierarchical Fair Competition-Based Parallel Genetic Algorithms. Lecture Notes in Computer Science, 2006, , 477-486.	1.0	1
89	Design Methodologies of Fuzzy Set-Based Fuzzy Model Based on GAs and Information Granulation. Lecture Notes in Computer Science, 2006, , 100-109.	1.0	1
90	Semantics and Perception of Fuzzy Sets and Fuzzy Mappings. Studies in Computational Intelligence, 2008, , 597-639.	0.7	1

#	Article	IF	Citations
91	The Design of Genetically Optimized Self-Organizing Neural Networks with Polynomial and Fuzzy Polynomial Neurons. Circuits, Systems, and Signal Processing, 2005, 24, 267-286.	1.2	0
92	Genetically Optimized Hybrid Fuzzy Neural Networks with the Aid of TSK Fuzzy Inference Rules and Polynomial Neural Networks. Lecture Notes in Computer Science, 2005, , 407-415.	1.0	0
93	Genetically Optimized Self-Organizing Neural Networks Based on PNs and FPNs. Lecture Notes in Computer Science, 2004, , 156-161.	1.0	0
94	Methodological Identification of Information Granules-Based Fuzzy Systems by Means of Genetic Optimization. Lecture Notes in Computer Science, 2006, , 467-476.	1.0	0
95	Automatic Data Understanding. Advances in Intelligent Systems and Computing, 2015, , 217-228.	0.5	0
96	Applications: Granular Models, Granular Classifiers and Fuzzy Cognitive Maps. Intelligent Systems Reference Library, 2021, , 249-269.	1.0	0
97	Identification of Fuzzy Set-Based Fuzzy Systems by Means of Data Granulation and Genetic Optimization. , 2007, , 1076-1085.		0