

# Patricia Melin

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

624  
papers

11,525  
citations

62  
h-index

93  
g-index

722  
ext. papers

13,169  
ext. citations

2.1  
avg, IF

7.27  
L-index

#	Paper	IF	Citations
624	A review on the design and optimization of interval type-2 fuzzy controllers. <i>Applied Soft Computing Journal</i> , <b>2012</b> , 12, 1267-1278	7.5	257
623	Path planning for autonomous mobile robot navigation with ant colony optimization and fuzzy cost function evaluation. <i>Applied Soft Computing Journal</i> , <b>2009</b> , 9, 1102-1110	7.5	253
622	Type-2 Fuzzy Logic: Theory and Applications. <i>Studies in Fuzziness and Soft Computing</i> , <b>2008</b> ,	0.7	231
621	A hybrid learning algorithm for a class of interval type-2 fuzzy neural networks. <i>Information Sciences</i> , <b>2009</b> , 179, 2175-2193	7.7	215
620	Comparative study of bio-inspired algorithms applied to the optimization of type-1 and type-2 fuzzy controllers for an autonomous mobile robot. <i>Information Sciences</i> , <b>2012</b> , 192, 19-38	7.7	202
619	Optimal design of fuzzy classification systems using PSO with dynamic parameter adaptation through fuzzy logic. <i>Expert Systems With Applications</i> , <b>2013</b> , 40, 3196-3206	7.8	195
618	Experimental study of intelligent controllers under uncertainty using type-1 and type-2 fuzzy logic. <i>Information Sciences</i> , <b>2007</b> , 177, 2023-2048	7.7	190
617	Edge-Detection Method for Image Processing Based on Generalized Type-2 Fuzzy Logic. <i>IEEE Transactions on Fuzzy Systems</i> , <b>2014</b> , 22, 1515-1525	8.3	180
616	A review on type-2 fuzzy logic applications in clustering, classification and pattern recognition. <i>Applied Soft Computing Journal</i> , <b>2014</b> , 21, 568-577	7.5	174
615	A review on interval type-2 fuzzy logic applications in intelligent control. <i>Information Sciences</i> , <b>2014</b> , 279, 615-631	7.7	172
614	An improved evolutionary method with fuzzy logic for combining Particle Swarm Optimization and Genetic Algorithms. <i>Applied Soft Computing Journal</i> , <b>2011</b> , 11, 2625-2632	7.5	162
613	Optimization of type-2 fuzzy systems based on bio-inspired methods: A concise review. <i>Information Sciences</i> , <b>2012</b> , 205, 1-19	7.7	140
612	A new approach for dynamic fuzzy logic parameter tuning in Ant Colony Optimization and its application in fuzzy control of a mobile robot. <i>Applied Soft Computing Journal</i> , <b>2015</b> , 28, 150-159	7.5	133
611	A fuzzy hierarchical operator in the grey wolf optimizer algorithm. <i>Applied Soft Computing Journal</i> , <b>2017</b> , 57, 315-328	7.5	131
610	Hybrid intelligent systems for time series prediction using neural networks, fuzzy logic, and fractal theory. <i>IEEE Transactions on Neural Networks</i> , <b>2002</b> , 13, 1395-408		126
609	A new approach for time series prediction using ensembles of ANFIS models. <i>Expert Systems With Applications</i> , <b>2012</b> , 39, 3494-3506	7.8	125
608	Ant colony optimization with dynamic parameter adaptation based on interval type-2 fuzzy logic systems. <i>Applied Soft Computing Journal</i> , <b>2017</b> , 53, 74-87	7.5	123

607	Particle swarm optimization of interval type-2 fuzzy systems for FPGA applications. <i>Applied Soft Computing Journal</i> , <b>2013</b> , 13, 496-508	7.5	121
606	An improved sobel edge detection method based on generalized type-2 fuzzy logic. <i>Soft Computing</i> , <b>2016</b> , 20, 773-784	3.5	120
605	Optimization of modular granular neural networks using a firefly algorithm for human recognition. <i>Engineering Applications of Artificial Intelligence</i> , <b>2017</b> , 64, 172-186	7.2	116
604	Optimization of interval type-2 fuzzy systems for image edge detection. <i>Applied Soft Computing Journal</i> , <b>2016</b> , 47, 631-643	7.5	113
603	An improved method for edge detection based on interval type-2 fuzzy logic. <i>Expert Systems With Applications</i> , <b>2010</b> , 37, 8527-8535	7.8	113
602	Optimal design of type-2 and type-1 fuzzy tracking controllers for autonomous mobile robots under perturbed torques using a new chemical optimization paradigm. <i>Expert Systems With Applications</i> , <b>2013</b> , 40, 3185-3195	7.8	112
601	A review on the applications of type-2 fuzzy logic in classification and pattern recognition. <i>Expert Systems With Applications</i> , <b>2013</b> , 40, 5413-5423	7.8	111
600	An optimization method for designing type-2 fuzzy inference systems based on the footprint of uncertainty using genetic algorithms. <i>Expert Systems With Applications</i> , <b>2012</b> , 39, 4590-4598	7.8	109
599	Optimization of type-2 fuzzy weights in backpropagation learning for neural networks using GAs and PSO. <i>Applied Soft Computing Journal</i> , <b>2016</b> , 38, 860-871	7.5	104
598	Optimization of interval type-2 fuzzy logic controllers using evolutionary algorithms. <i>Soft Computing</i> , <b>2011</b> , 15, 1145-1160	3.5	102
597	Interval type-2 fuzzy weight adjustment for backpropagation neural networks with application in time series prediction. <i>Information Sciences</i> , <b>2014</b> , 260, 1-14	7.7	100
596	Fuzzy granular gravitational clustering algorithm for multivariate data. <i>Information Sciences</i> , <b>2014</b> , 279, 498-511	7.7	100
595	Design of interval type-2 fuzzy models through optimal granularity allocation. <i>Applied Soft Computing Journal</i> , <b>2011</b> , 11, 5590-5601	7.5	99
594	A survey on nature-inspired optimization algorithms with fuzzy logic for dynamic parameter adaptation. <i>Expert Systems With Applications</i> , <b>2014</b> , 41, 6459-6466	7.8	97
593	Springer Handbook of Computational Intelligence <b>2015</b> ,		94
592	Dynamic parameter adaptation in particle swarm optimization using interval type-2 fuzzy logic. <i>Soft Computing</i> , <b>2016</b> , 20, 1057-1070	3.5	93
591	High order $\mathbb{H}$ planes integration: A new approach to computational cost reduction of General Type-2 Fuzzy Systems. <i>Engineering Applications of Artificial Intelligence</i> , <b>2018</b> , 74, 186-197	7.2	93
590	A new neural network model based on the LVQ algorithm for multi-class classification of arrhythmias. <i>Information Sciences</i> , <b>2014</b> , 279, 483-497	7.7	93

589	Face Recognition With an Improved Interval Type-2 Fuzzy Logic Sugeno Integral and Modular Neural Networks. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , <b>2011</b> , 41, 1001-1012		92
588	Interval type-2 fuzzy logic for dynamic parameter adaptation in a modified gravitational search algorithm. <i>Information Sciences</i> , <b>2019</b> , 476, 159-175	7.7	92
587	Genetic optimization of modular neural networks with fuzzy response integration for human recognition. <i>Information Sciences</i> , <b>2012</b> , 197, 1-19	7.7	91
586	Hybrid Intelligent Systems for Pattern Recognition Using Soft Computing. <i>Studies in Fuzziness and Soft Computing</i> , <b>2005</b> ,	0.7	89
585	Multiple Ensemble Neural Network Models with Fuzzy Response Aggregation for Predicting COVID-19 Time Series: The Case of Mexico. <i>Healthcare (Switzerland)</i> , <b>2020</b> , 8,	3.4	88
584	Particle swarm optimization of ensemble neural networks with fuzzy aggregation for time series prediction of the Mexican Stock Exchange. <i>Information Sciences</i> , <b>2014</b> , 280, 188-204	7.7	86
583	Multiple Objective Genetic Algorithms for Path-planning Optimization in Autonomous Mobile Robots. <i>Soft Computing</i> , <b>2006</b> , 11, 269-279	3.5	84
582	Simulation of the bird age-structured population growth based on an interval type-2 fuzzy cellular structure. <i>Information Sciences</i> , <b>2011</b> , 181, 519-535	7.7	80
581	Embedding a high speed interval type-2 fuzzy controller for a real plant into an FPGA. <i>Applied Soft Computing Journal</i> , <b>2012</b> , 12, 988-998	7.5	78
580	Optimization of modular granular neural networks using hierarchical genetic algorithms for human recognition using the ear biometric measure. <i>Engineering Applications of Artificial Intelligence</i> , <b>2014</b> , 27, 41-56	7.2	77
579	Hybrid intelligent system for cardiac arrhythmia classification with Fuzzy K-Nearest Neighbors and neural networks combined with a fuzzy system. <i>Expert Systems With Applications</i> , <b>2012</b> , 39, 2947-2955	7.8	77
578	Intelligent control of complex electrochemical systems with a neuro-fuzzy-genetic approach. <i>IEEE Transactions on Industrial Electronics</i> , <b>2001</b> , 48, 951-955	8.9	77
577	Application of interval type-2 fuzzy neural networks in non-linear identification and time series prediction. <i>Soft Computing</i> , <b>2014</b> , 18, 1213-1224	3.5	75
576	Analysis of Spatial Spread Relationships of Coronavirus (COVID-19) Pandemic in the World using Self Organizing Maps. <i>Chaos, Solitons and Fractals</i> , <b>2020</b> , 138, 109917	9.3	74
575	Adaptive intelligent control of aircraft systems with a hybrid approach combining neural networks, fuzzy logic and fractal theory. <i>Applied Soft Computing Journal</i> , <b>2003</b> , 3, 353-362	7.5	74
574	Multi-objective optimization for modular granular neural networks applied to pattern recognition. <i>Information Sciences</i> , <b>2018</b> , 460-461, 594-610	7.7	73
573	Interval type-2 fuzzy logic and modular neural networks for face recognition applications. <i>Applied Soft Computing Journal</i> , <b>2009</b> , 9, 1377-1387	7.5	73
572	Systematic design of a stable type-2 fuzzy logic controller. <i>Applied Soft Computing Journal</i> , <b>2008</b> , 8, 1274-1279	7.2	72

571	A hybrid model based on modular neural networks and fuzzy systems for classification of blood pressure and hypertension risk diagnosis. <i>Expert Systems With Applications</i> , <b>2018</b> , 107, 146-164	7.8	71
570	Modular Neural Networks architecture optimization with a new nature inspired method using a fuzzy combination of Particle Swarm Optimization and Genetic Algorithms. <i>Information Sciences</i> , <b>2014</b> , 270, 143-153	7.7	71
569	Type-1 and type-2 fuzzy inference systems as integration methods in modular neural networks for multimodal biometry and its optimization with genetic algorithms. <i>Information Sciences</i> , <b>2009</b> , 179, 2123-2145	7.7	70
568	An intelligent hybrid approach for industrial quality control combining neural networks, fuzzy logic and fractal theory. <i>Information Sciences</i> , <b>2007</b> , 177, 1543-1557	7.7	69
567	Intelligent control of a stepping motor drive using a hybrid neuro-fuzzy ANFIS approach. <i>Applied Soft Computing Journal</i> , <b>2003</b> , 3, 209-219	7.5	69
566	Soft Computing for Control of Non-Linear Dynamical Systems. <i>Studies in Fuzziness and Soft Computing</i> , <b>2001</b> ,	0.7	69
565	An Interval Type-2 Fuzzy Logic Toolbox for Control Applications. <i>IEEE International Conference on Fuzzy Systems</i> , <b>2007</b> ,		66
564	A hybrid modular neural network architecture with fuzzy Sugeno integration for time series forecasting. <i>Applied Soft Computing Journal</i> , <b>2007</b> , 7, 1217-1226	7.5	65
563	A hybrid approach for image recognition combining type-2 fuzzy logic, modular neural networks and the Sugeno integral. <i>Information Sciences</i> , <b>2009</b> , 179, 2078-2101	7.7	62
562	Human evolutionary model: A new approach to optimization. <i>Information Sciences</i> , <b>2007</b> , 177, 2075-2098	7.7	62
561	An Efficient Computational Method to Implement Type-2 Fuzzy Logic in Control Applications <b>2007</b> , 45-52		62
560	A New Method for Adaptive Control of Non-Linear Plants Using Type-2 Fuzzy Logic and Neural Networks. <i>International Journal of General Systems</i> , <b>2004</b> , 33, 289-304	2.1	62
559	A new approach for classifying coronavirus COVID-19 based on its manifestation on chest X-rays using texture features and neural networks. <i>Information Sciences</i> , <b>2021</b> , 545, 403-414	7.7	62
558	Intelligent adaptive model-based control of robotic dynamic systems with a hybrid fuzzy-neural approach. <i>Applied Soft Computing Journal</i> , <b>2003</b> , 3, 363-378	7.5	61
557	A Grey Wolf Optimizer for Modular Granular Neural Networks for Human Recognition. <i>Computational Intelligence and Neuroscience</i> , <b>2017</b> , 2017, 4180510	3	60
556	A new gravitational search algorithm using fuzzy logic to parameter adaptation <b>2013</b> ,		60
555	Comparative study of the use of fuzzy logic in improving particle swarm optimization variants for mathematical functions using co-evolution. <i>Applied Soft Computing Journal</i> , <b>2017</b> , 52, 1070-1083	7.5	60
554	Fuzzy higher type information granules from an uncertainty measurement. <i>Granular Computing</i> , <b>2017</b> , 2, 95-103	5.4	57

553	Intelligent control of a stepping motor drive using an adaptive neuro-fuzzy inference system. <i>Information Sciences</i> , <b>2005</b> , 170, 133-151	7.7	56
552	Forecasting of COVID-19 time series for countries in the world based on a hybrid approach combining the fractal dimension and fuzzy logic. <i>Chaos, Solitons and Fractals</i> , <b>2020</b> , 140, 110242	9.3	56
551	An Extension of the Fuzzy Possibilistic Clustering Algorithm Using Type-2 Fuzzy Logic Techniques. <i>Advances in Fuzzy Systems</i> , <b>2017</b> , 2017, 1-23	1.7	55
550	Evolutionary method combining particle swarm optimization and genetic algorithms using fuzzy logic for decision making <b>2009</b> ,		55
549	Comparative analysis of noise robustness of type 2 fuzzy logic controllers. <i>Kybernetika</i> , 175-201		55
548	New approach using ant colony optimization with ant set partition for fuzzy control design applied to the ball and beam system. <i>Information Sciences</i> , <b>2015</b> , 294, 203-215	7.7	53
547	Comparative study of interval Type-2 and general Type-2 fuzzy systems in medical diagnosis. <i>Information Sciences</i> , <b>2020</b> , 525, 37-53	7.7	52
546	<b>2007</b> ,		51
545	Fuzzy Sets in Dynamic Adaptation of Parameters of a Bee Colony Optimization for Controlling the Trajectory of an Autonomous Mobile Robot. <i>Sensors</i> , <b>2016</b> , 16,	3.8	51
544	Design of an interval Type-2 fuzzy model with justifiable uncertainty. <i>Information Sciences</i> , <b>2020</b> , 513, 206-221	7.7	47
543	A New Fuzzy Harmony Search Algorithm Using Fuzzy Logic for Dynamic Parameter Adaptation. <i>Algorithms</i> , <b>2016</b> , 9, 69	1.8	47
542	Fuzzy logic in the gravitational search algorithm for the optimization of modular neural networks in pattern recognition. <i>Expert Systems With Applications</i> , <b>2015</b> , 42, 5839-5847	7.8	46
541	A New Approach for Time Series Prediction Using Ensembles of IT2FNN Models with Optimization of Fuzzy Integrators. <i>International Journal of Fuzzy Systems</i> , <b>2018</b> , 20, 701-728	3.6	45
540	New Methodology to Approximate Type-Reduction Based on a Continuous Root-Finding Karnik Mendel Algorithm. <i>Algorithms</i> , <b>2017</b> , 10, 77	1.8	45
539	Time series prediction using ensembles of ANFIS models with genetic optimization of interval type-2 and type-1 fuzzy integrators. <i>International Journal of Hybrid Intelligent Systems</i> , <b>2014</b> , 11, 211-226 <sup>0.9</sup>		45
538	Generalized type-2 fuzzy weight adjustment for backpropagation neural networks in time series prediction. <i>Information Sciences</i> , <b>2015</b> , 325, 159-174	7.7	44
537	An approach for parameterized shadowed type-2 fuzzy membership functions applied in control applications. <i>Soft Computing</i> , <b>2019</b> , 23, 3887-3901	3.5	44
536	Comparison of particle swarm optimization variants with fuzzy dynamic parameter adaptation for modular granular neural networks for human recognition. <i>Journal of Intelligent and Fuzzy Systems</i> , <b>2020</b> , 38, 3229-3252	1.6	43

535	Hybrid model based on neural networks, type-1 and type-2 fuzzy systems for 2-lead cardiac arrhythmia classification. <i>Expert Systems With Applications</i> , <b>2019</b> , 126, 295-307	7.8	42
534	Optimization of modular granular neural networks using a hierarchical genetic algorithm based on the database complexity applied to human recognition. <i>Information Sciences</i> , <b>2015</b> , 309, 73-101	7.7	42
533	A high-speed interval type 2 fuzzy system approach for dynamic parameter adaptation in metaheuristics. <i>Engineering Applications of Artificial Intelligence</i> , <b>2019</b> , 85, 666-680	7.2	39
532	A New Approach to Multiple Time Series Prediction Using MIMO Fuzzy Aggregation Models with Modular Neural Networks. <i>International Journal of Fuzzy Systems</i> , <b>2019</b> , 21, 1629-1648	3.6	39
531	Interval type-2 fuzzy logic for edges detection in digital images. <i>International Journal of Intelligent Systems</i> , <b>2009</b> , 24, 1115-1133	8.4	39
530	<b>2007</b> ,		39
529	Soft Computing and Fractal Theory for Intelligent Manufacturing. <i>Studies in Fuzziness and Soft Computing</i> , <b>2003</b> ,	0.7	39
528	Hierarchical genetic algorithms for topology optimization in fuzzy control systems. <i>International Journal of General Systems</i> , <b>2007</b> , 36, 575-591	2.1	37
527	Interval type-2 fuzzy logic for dynamic parameter adaptation in the bat algorithm. <i>Soft Computing</i> , <b>2017</b> , 21, 667-685	3.5	36
526	Building Fuzzy Inference Systems with a New Interval Type-2 Fuzzy Logic Toolbox <b>2008</b> , 104-114		36
525	Optimization of Intelligent Controllers Using a Type-1 and Interval Type-2 Fuzzy Harmony Search Algorithm. <i>Algorithms</i> , <b>2017</b> , 10, 82	1.8	34
524	A Hybrid Approach for Modular Neural Network Design Using Intercriteria Analysis and Intuitionistic Fuzzy Logic. <i>Complexity</i> , <b>2018</b> , 2018, 1-11	1.6	32
523	Optimal design of interval type 2 fuzzy controllers based on a simple tuning algorithm. <i>Applied Soft Computing Journal</i> , <b>2014</b> , 23, 270-285	7.5	32
522	Building Fuzzy Inference Systems with the Interval Type-2 Fuzzy Logic Toolbox <b>2007</b> , 53-62		32
521	Optimal Genetic Design of Type-1 and Interval Type-2 Fuzzy Systems for Blood Pressure Level Classification. <i>Axioms</i> , <b>2019</b> , 8, 8	1.6	31
520	Modelling, Simulation and Control of Non-Linear Dynamical Systems		30
519	Ant colony test center for planning autonomous mobile robot navigation. <i>Computer Applications in Engineering Education</i> , <b>2013</b> , 21, 214-229	1.6	29
518	Shadowed Type-2 Fuzzy Systems for Dynamic Parameter Adaptation in Harmony Search and Differential Evolution Algorithms. <i>Algorithms</i> , <b>2019</b> , 12, 17	1.8	28

517	Fuzzy logic in the gravitational search algorithm enhanced using fuzzy logic with dynamic alpha parameter value adaptation for the optimization of modular neural networks in echocardiogram recognition. <i>Applied Soft Computing Journal</i> , <b>2015</b> , 37, 245-254	7.5	27
516	A New Method for Edge Detection in Image Processing Using Interval Type-2 Fuzzy Logic <b>2007</b> ,		27
515	Toward a development of general type-2 fuzzy classifiers applied in diagnosis problems through embedded type-1 fuzzy classifiers. <i>Soft Computing</i> , <b>2020</b> , 24, 83-99	3.5	27
514	Optimal Design of Interval Type-2 Fuzzy Heart Rate Level Classification Systems Using the Bird Swarm Algorithm. <i>Algorithms</i> , <b>2018</b> , 11, 206	1.8	27
513	Fuzzy rule-based models with interactive rules and their granular generalization. <i>Fuzzy Sets and Systems</i> , <b>2017</b> , 307, 1-28	3.7	25
512	A multi-objective optimization of type-2 fuzzy control speed in FPGAs. <i>Applied Soft Computing Journal</i> , <b>2014</b> , 24, 1164-1174	7.5	25
511	3 Type-2 Fuzzy Logic. <i>Studies in Fuzziness and Soft Computing</i> , <b>2007</b> , 29-43	0.7	24
510	Face recognition using modular neural networks and the fuzzy Sugeno integral for response integration. <i>International Journal of Intelligent Systems</i> , <b>2005</b> , 20, 275-291	8.4	24
509	A Novel Method for a COVID-19 Classification of Countries Based on an Intelligent Fuzzy Fractal Approach. <i>Healthcare (Switzerland)</i> , <b>2021</b> , 9,	3.4	24
508	A hybrid learning method composed by the orthogonal least-squares and the back-propagation learning algorithms for interval A2-C1 type-1 non-singleton type-2 TSK fuzzy logic systems. <i>Soft Computing</i> , <b>2015</b> , 19, 661-678	3.5	23
507	General Type-2 Radial Basis Function Neural Network: A Data-Driven Fuzzy Model. <i>IEEE Transactions on Fuzzy Systems</i> , <b>2019</b> , 27, 333-347	8.3	23
506	A hybrid design of shadowed type-2 fuzzy inference systems applied in diagnosis problems. <i>Engineering Applications of Artificial Intelligence</i> , <b>2019</b> , 86, 43-55	7.2	23
505	A new approach for plant monitoring using type-2 fuzzy logic and fractal theory. <i>International Journal of General Systems</i> , <b>2004</b> , 33, 305-319	2.1	23
504	Design of an Optimized Fuzzy Classifier for the Diagnosis of Blood Pressure with a New Computational Method for Expert Rule Optimization. <i>Algorithms</i> , <b>2017</b> , 10, 79	1.8	22
503	Modular Neural Network with Fuzzy Integration and Its Optimization Using Genetic Algorithms for Human Recognition Based on Iris, Ear and Voice Biometrics. <i>Studies in Computational Intelligence</i> , <b>2010</b> , 85-102	0.8	22
502	Optimal design of a general type-2 fuzzy classifier for the pulse level and its hardware implementation. <i>Engineering Applications of Artificial Intelligence</i> , <b>2021</b> , 97, 104069	7.2	22
501	Modular Neural Networks and Type-2 Fuzzy Systems for Pattern Recognition. <i>Studies in Computational Intelligence</i> , <b>2012</b> ,	0.8	20
500	The evolutionary learning rule for system identification. <i>Applied Soft Computing Journal</i> , <b>2003</b> , 3, 343-352.	7.5	20



499	A New Biometric Recognition Technique Based on Hand Geometry and Voice Using Neural Networks and Fuzzy Logic. <i>Studies in Computational Intelligence</i> , <b>2008</b> , 171-186	0.8	20
498	Fuzzy control of parameters to dynamically adapt the PSO and GA Algorithms <b>2010</b> ,		19
497	DEVELOPING A NEW METHOD FOR THE IDENTIFICATION OF MICROORGANISMS FOR THE FOOD INDUSTRY USING THE FRACTAL DIMENSION. <i>Fractals</i> , <b>1994</b> , 02, 457-460	3.2	19
496	An Interval Type-2 Fuzzy Neural Network for Chaotic Time Series Prediction with Cross-Validation and Akaike Test. <i>Studies in Computational Intelligence</i> , <b>2010</b> , 269-285	0.8	19
495	A New Hybridization Approach between the Fireworks Algorithm and Grey Wolf Optimizer Algorithm. <i>Journal of Optimization</i> , <b>2018</b> , 2018, 1-18	0.5	18
494	Genetic optimization of ensemble neural networks for complex time series prediction <b>2011</b> ,		18
493	Type-2 Fuzzy Logic for Improving Training Data and Response Integration in Modular Neural Networks for Image Recognition. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 604-612	0.9	18
492	Modular Neural Networks and Type-2 Fuzzy Logic for Face Recognition <b>2007</b> ,		18
491	Type-1 and Type-2 Fuzzy Inference Systems as Integration Methods in Modular Neural Networks for Multimodal Biometry and Its Optimization with Genetic Algorithms. <i>Studies in Computational Intelligence</i> , <b>2008</b> , 89-114	0.8	18
490	Bio-inspired Optimization Methods on Graphic Processing Unit for Minimization of Complex Mathematical Functions. <i>Studies in Computational Intelligence</i> , <b>2013</b> , 313-322	0.8	18
489	Cuckoo search algorithm for the optimization of type-2 fuzzy image edge detection systems <b>2015</b> ,		17
488	Universal Approximation of a Class of Interval Type-2 Fuzzy Neural Networks in Nonlinear Identification. <i>Advances in Fuzzy Systems</i> , <b>2013</b> , 2013, 1-16	1.7	17
487	Intelligent Control of Nonlinear Dynamic Plants Using a Hierarchical Modular Approach and Type-2 Fuzzy Logic. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 1-12	0.9	17
486	A new approach to control of multivariable systems through a hierarchical aggregation of fuzzy controllers. <i>Granular Computing</i> , <b>2019</b> , 4, 1-13	5.4	17
485	Recent Advances in Interval Type-2 Fuzzy Systems. <i>SpringerBriefs in Applied Sciences and Technology</i> , <b>2012</b> ,	0.4	16
484	Comparison of Hybrid Intelligent Systems, Neural Networks and Interval Type-2 Fuzzy Logic for Time Series Prediction. <i>Neural Networks (IJCNN), International Joint Conference on</i> , <b>2007</b> ,		16
483	Quadrupedal Robot Locomotion: A Biologically Inspired Approach and Its Hardware Implementation. <i>Computational Intelligence and Neuroscience</i> , <b>2016</b> , 2016, 5615618	3	16
482	A new modular neural network approach with fuzzy response integration for lung disease classification based on multiple objective feature optimization in chest X-ray images. <i>Expert Systems With Applications</i> , <b>2021</b> , 168, 114361	7.8	16

481	Fuzzy Fireworks Algorithm Based on a Sparks Dispersion Measure. <i>Algorithms</i> , <b>2017</b> , 10, 83	1.8	15
480	Parallel Particle Swarm Optimization with Parameters Adaptation Using Fuzzy Logic. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 374-385	0.9	15
479	Parallel Evolutionary Computing using a cluster for Mathematical Function Optimization <b>2007</b> ,		15
478	Adaptive noise cancellation using type-2 fuzzy logic and neural networks		15
477	Modular Neural Network Preprocessing Procedure with Intuitionistic Fuzzy InterCriteria Analysis Method. <i>Advances in Intelligent Systems and Computing</i> , <b>2016</b> , 175-186	0.4	15
476	PSO with Dynamic Adaptation of Parameters for Optimization in Neural Networks with Interval Type-2 Fuzzy Numbers Weights. <i>Axioms</i> , <b>2019</b> , 8, 14	1.6	15
475	Method for Higher Order polynomial Sugeno Fuzzy Inference Systems. <i>Information Sciences</i> , <b>2016</b> , 351, 76-89	7.7	14
474	General Type-2 Fuzzy Sugeno Integral for Edge Detection. <i>Journal of Imaging</i> , <b>2019</b> , 5,	3.1	14
473	Type-2 Fuzzy Logic Systems. <i>SpringerBriefs in Applied Sciences and Technology</i> , <b>2012</b> , 7-12	0.4	14
472	Intelligent control of aircraft dynamic systems with a new hybrid neurofuzzyfractal approach. <i>Information Sciences</i> , <b>2002</b> , 142, 161-175	7.7	14
471	Bio-Inspired Algorithms and Its Applications for Optimization in Fuzzy Clustering. <i>Algorithms</i> , <b>2021</b> , 14, 122	1.8	14
470	Short Remark on Fuzzy Sets, Interval Type-2 Fuzzy Sets, General Type-2 Fuzzy Sets and Intuitionistic Fuzzy Sets. <i>Advances in Intelligent Systems and Computing</i> , <b>2015</b> , 183-190	0.4	13
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325	Iterative fireworks algorithm with fuzzy coefficients <b>2017</b> ,		4
324	Response integration in modular neural networks using Choquet Integral with Interval type 2 Sugeno measures <b>2015</b> ,		4
323	Modular neural networks for person recognition using segmentation and the iris biometric measurement with image pre-processing <b>2010</b> ,		4
322	Integrated development platform for intelligent control based on type-2 fuzzy logic		4
321	Fingerprint recognition using modular neural networks and fuzzy integrals for response integration		4
320	Optimization of the Fuzzy Integrators in Ensembles of ANFIS Model for Time Series Prediction: The case of Mackey-Glass		4

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