

Juan R Castro

List of Publications by Year in descending order

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89
papers

2,924
citations

361045

20
h-index

174990

52
g-index

100
all docs

100
docs citations

100
times ranked

1697
citing authors

#	ARTICLE	IF	CITATIONS
1	A comparative study of type-1 fuzzy logic systems, interval type-2 fuzzy logic systems and generalized type-2 fuzzy logic systems in control problems. <i>Information Sciences</i> , 2016, 354, 257-274.	4.0	346
2	A hybrid learning algorithm for a class of interval type-2 fuzzy neural networks. <i>Information Sciences</i> , 2009, 179, 2175-2193.	4.0	261
3	Generalized Type-2 Fuzzy Systems for controlling a mobile robot and a performance comparison with Interval Type-2 and Type-1 Fuzzy Systems. <i>Expert Systems With Applications</i> , 2015, 42, 5904-5914.	4.4	251
4	Edge-Detection Method for Image Processing Based on Generalized Type-2 Fuzzy Logic. <i>IEEE Transactions on Fuzzy Systems</i> , 2014, 22, 1515-1525.	6.5	222
5	A generalized type-2 fuzzy granular approach with applications to aerospace. <i>Information Sciences</i> , 2016, 354, 165-177.	4.0	204
6	An improved sobel edge detection method based on generalized type-2 fuzzy logic. <i>Soft Computing</i> , 2016, 20, 773-784.	2.1	158
7	Information granule formation via the concept of uncertainty-based information with Interval Type-2 Fuzzy Sets representation and Takagiâ€“Sugenoâ€“Kang consequents optimized with Cuckoo search. <i>Applied Soft Computing Journal</i> , 2015, 27, 602-609.	4.1	138
8	Optimization of interval type-2 fuzzy systems for image edge detection. <i>Applied Soft Computing Journal</i> , 2016, 47, 631-643.	4.1	136
9	Optimization of type-2 fuzzy weights in backpropagation learning for neural networks using GAs and PSO. <i>Applied Soft Computing Journal</i> , 2016, 38, 860-871.	4.1	125
10	Fuzzy granular gravitational clustering algorithm for multivariate data. <i>Information Sciences</i> , 2014, 279, 498-511.	4.0	113
11	An Interval Type-2 Fuzzy Logic Toolbox for Control Applications. <i>IEEE International Conference on Fuzzy Systems</i> , 2007, , .	0.0	99
12	Application of interval type-2 fuzzy neural networks in non-linear identification and time series prediction. <i>Soft Computing</i> , 2014, 18, 1213-1224.	2.1	99
13	Fuzzy Sets in Dynamic Adaptation of Parameters of a Bee Colony Optimization for Controlling the Trajectory of an Autonomous Mobile Robot. <i>Sensors</i> , 2016, 16, 1458.	2.1	64
14	Fuzzy higher type information granules from an uncertainty measurement. <i>Granular Computing</i> , 2017, 2, 95-103.	4.4	59
15	An approach for parameterized shadowed type-2 fuzzy membership functions applied in control applications. <i>Soft Computing</i> , 2019, 23, 3887-3901.	2.1	50
16	Building Fuzzy Inference Systems with a New Interval Type-2 Fuzzy Logic Toolbox. , 2008, , 104-114.		42
17	Fuzzy Dynamic Parameter Adaptation in the Harmony Search Algorithm for the Optimization of the Ball and Beam Controller. <i>Advances in Operations Research</i> , 2018, 2018, 1-16.	0.2	33
18	An Interval Type-2 Fuzzy Neural Network for Chaotic Time Series Prediction with Cross-Validation and Akaike Test. <i>Studies in Computational Intelligence</i> , 2010, , 269-285.	0.7	30

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19	Computational intelligence software for interval type-2 fuzzy logic. Computer Applications in Engineering Education, 2013, 21, 737-747.	2.2	23
20	Genetic Algorithm Optimization for Type-2 Non-singleton Fuzzy Logic Controllers. Studies in Computational Intelligence, 2014, , 3-18.	0.7	23
21	PSO with Dynamic Adaptation of Parameters for Optimization in Neural Networks with Interval Type-2 Fuzzy Numbers Weights. Axioms, 2019, 8, 14.	0.9	22
22	Universal Approximation of a Class of Interval Type-2 Fuzzy Neural Networks in Nonlinear Identification. Advances in Fuzzy Systems, 2013, 2013, 1-16.	0.6	20
23	Interval type-3 fuzzy aggregators for ensembles of neural networks in COVID-19 time series prediction. Engineering Applications of Artificial Intelligence, 2022, 114, 105110.	4.3	19
24	A New Method for Parameterization of General Type-2 Fuzzy Sets. Fuzzy Information and Engineering, 2018, 10, 31-57.	1.0	18
25	Hybrid Learning Algorithm for Interval Type-2 Fuzzy Neural Networks. , 2007, , .		17
26	Fuzzy Index to Evaluate Edge Detection in Digital Images. PLoS ONE, 2015, 10, e0131161.	1.1	17
27	Hybrid Learning for General Type-2 TSK Fuzzy Logic Systems. Algorithms, 2017, 10, 99.	1.2	17
28	Big Five Patterns for Software Engineering Roles Using an ANFIS Learning Approach with RAMSET. Lecture Notes in Computer Science, 2010, , 428-439.	1.0	16
29	Method for Higher Order polynomial Sugeno Fuzzy Inference Systems. Information Sciences, 2016, 351, 76-89.	4.0	15
30	A Hybrid Learning Algorithm for Interval Type-2 Fuzzy Neural Networks: The Case of Time Series Prediction. Studies in Computational Intelligence, 2008, , 363-386.	0.7	15
31	Interval Type-3 Fuzzy Aggregation of Neural Networks for Multiple Time Series Prediction: The Case of Financial Forecasting. Axioms, 2022, 11, 251.	0.9	15
32	Experiences in software engineering courses using psychometrics with RAMSET. , 2010, , .		13
33	A Generalized Type-2 Fuzzy Logic System for the dynamic adaptation the parameters in a Bee Colony Optimization algorithm applied in an autonomous mobile robot control. , 2016, , .		11
34	Comparison of T-Norms and S-Norms for Interval Type-2 Fuzzy Numbers in Weight Adjustment for Neural Networks. Information (Switzerland), 2017, 8, 114.	1.7	11
35	Interpretable Mamdani neuro-fuzzy model through context awareness and linguistic adaptation. Expert Systems With Applications, 2022, 189, 116098.	4.4	11
36	General Type-2 Fuzzy Edge Detection in the Preprocessing of a Face Recognition System. Studies in Computational Intelligence, 2017, , 3-18.	0.7	10

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37	Interval Type-2 Fuzzy Logic for Intelligent Control Applications. , 2007, , .		9
38	Choquet Integral and Interval Type-2 Fuzzy Choquet Integral for Edge Detection. Studies in Computational Intelligence, 2017, , 79-97.	0.7	9
39	A T-S Fuzzy Logic Controller for biped robot walking based on adaptive network fuzzy inference system. , 2010, , .		8
40	Using MatLab's fuzzy logic toolbox to create an application for RAMSET in software engineering courses. Computer Applications in Engineering Education, 2013, 21, 596-605.	2.2	7
41	Type-2 Fuzzy Grammar in Language Evolution. Studies in Computational Intelligence, 2013, , 501-515.	0.7	7
42	Fuzzy granular gravitational clustering algorithm. , 2012, , .		6
43	Interval type-2 fuzzy logic for image edge detection quality evaluation. , 2012, , .		6
44	Comparison between Choquet and Sugeno integrals as aggregation operators for pattern recognition. , 2016, , .		6
45	An Overview of Granular Computing Using Fuzzy Logic Systems. Studies in Computational Intelligence, 2017, , 19-38.	0.7	6
46	Agent-Based Model for Automaticity Management of Traffic Flows across the Network. Applied Sciences (Switzerland), 2017, 7, 928.	1.3	6
47	Intelligent control using an Interval Type-2 Fuzzy Neural Network with a hybrid learning algorithm. , 2008, , .		5
48	A new approach based on generalized type-2 fuzzy logic for edge detection. , 2013, , .		5
49	A hybrid method for IT2 TSK formation based on the principle of justifiable granularity and PSO for spread optimization. , 2013, , .		5
50	Generalized type-2 fuzzy logic in response integration of modular neural networks. , 2013, , .		5
51	Formation of general type-2 Gaussian membership functions based on the information granule numerical evidence. , 2013, , .		5
52	A class of interval type-2 fuzzy neural networks illustrated with application to non-linear identification. , 2013, , .		5
53	Method for Measurement of Uncertainty Applied to the Formation of Interval Type-2 Fuzzy Sets. Studies in Computational Intelligence, 2015, , 13-25.	0.7	5
54	General Type-2 fuzzy edge detectors applied to face recognition systems. , 2016, , .		5

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55	Response integration in modular neural networks using Choquet Integral with Interval type 2 Sugeno measures. , 2015, , .		4
56	Color Image Edge Detection Method Based on Interval Type-2 Fuzzy Systems. Studies in Computational Intelligence, 2015, , 3-11.	0.7	4
57	Optimization with genetic algorithm and particle swarm optimization of type-2 fuzzy integrator for ensemble neural network in time series. , 2016, , .		4
58	A FPGA-Based Hardware Architecture Approach for Real-Time Fuzzy Edge Detection. Studies in Computational Intelligence, 2017, , 519-540.	0.7	4
59	Hybrid Learning Algorithm for Interval Type-2 Fuzzy Neural Networks. , 2007, , .		3
60	Type-2 fuzzy load regulation of a servomechanism with backlash using only motor position measurements. , 2010, , .		3
61	Decision making fuzzy model for software engineering role assignment based on fuzzy logic and big five patterns using RAMSET. Intelligent Decision Technologies, 2011, 6, 59-67.	0.6	3
62	An edge detection method based on generalized type-2 fuzzy logic. , 2013, , .		3
63	An Analysis on the Intrinsic Implementation of the Principle of Justifiable Granularity in Clustering Algorithms. Studies in Computational Intelligence, 2013, , 121-134.	0.7	3
64	General type-2 fuzzy edge detector applied on face recognition system using neural networks. , 2016, , .		3
65	An approach on the implementation of full batch, online and mini-batch learning on a Mamdani based neuro-fuzzy system with center-of-sets defuzzification: Analysis and evaluation about its functionality, performance, and behavior. PLoS ONE, 2019, 14, e0221369.	1.1	3
66	Optimization by Cuckoo Search of Interval Type-2 Fuzzy Logic Systems for Edge Detection. Studies in Fuzziness and Soft Computing, 2016, , 141-154.	0.6	3
67	Toward General Type-2 Fuzzy Logic Systems Based on Shadowed Sets. Advances in Intelligent Systems and Computing, 2018, , 131-142.	0.5	3
68	Optimization of Deep Neural Network for Recognition with Human Iris Biometric Measure. Advances in Intelligent Systems and Computing, 2018, , 172-180.	0.5	3
69	Fuzzy Models for Complex Social Systems Using Distributed Agencies in Poverty Studies. Communications in Computer and Information Science, 2011, , 391-400.	0.4	3
70	Distance Aproximator Using IEEE 802.11 Received Signal Strength and Fuzzy Logic. Lecture Notes in Computer Science, 2013, , 411-420.	1.0	3
71	Edge Detection Methods Based on Generalized Type-2 Fuzzy Logic Systems. SpringerBriefs in Applied Sciences and Technology, 2017, , 21-35.	0.2	3
72	Simulation of language evolution using Fuzzy Grammars. , 2012, , .		2

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73	Towards a Personality Fuzzy Model Based on Big Five Patterns for Engineers Using an ANFIS Learning Approach. Lecture Notes in Computer Science, 2013, , 456-466.	1.0	2
74	Uncertainty-Based Information Granule Formation. Studies in Computational Intelligence, 2014, , 113-123.	0.7	2
75	Ensemble Neural Network with Type-2 Fuzzy Weights Using Response Integration for Time Series Prediction. Studies in Fuzziness and Soft Computing, 2018, , 175-189.	0.6	2
76	Non-singleton Interval Type-2 Fuzzy Systems as Integration Methods in Modular Neural Networks Used Genetic Algorithms to Design. Studies in Computational Intelligence, 2017, , 821-838.	0.7	2
77	Edge Detection Methods and Filters Used on Digital Image Processing. SpringerBriefs in Applied Sciences and Technology, 2017, , 11-16.	0.2	2
78	Generalized Type-2 Fuzzy Edge Detection Applied on a Face Recognition System. SpringerBriefs in Applied Sciences and Technology, 2017, , 37-41.	0.2	2
79	Towards a Fuzzy Model for RAMSET: Role Assignment Methodology for Software Engineering Teams. Studies in Computational Intelligence, 2010, , 23-41.	0.7	2
80	An Analysis of the Relationship between the Size of the Clusters and the Principle of Justifiable Granularity in Clustering Algorithms. Studies in Fuzziness and Soft Computing, 2013, , 239-263.	0.6	1
81	Choquet Integral with Interval Type 2 Sugeno Measures as an Integration Method for Modular Neural Networks. Studies in Fuzziness and Soft Computing, 2016, , 71-86.	0.6	1
82	Advances in Granular Computing. SpringerBriefs in Applied Sciences and Technology, 2017, , 19-35.	0.2	1
83	Fuzzy operators for quality evaluation in images edge detection. , 2013, , .		0
84	Experimentation and Results Discussion. SpringerBriefs in Applied Sciences and Technology, 2017, , 37-49.	0.2	0
85	Assessment of Uncertainty in the Projective Tree Test Using an ANFIS Learning Approach. Lecture Notes in Computer Science, 2011, , 46-57.	1.0	0
86	Interval Type-2 Fuzzy System for Image Edge Detection Quality Evaluation Applied to Synthetic and Real Images. Studies in Computational Intelligence, 2013, , 147-157.	0.7	0
87	Type-2 Fuzzy Logic Grammars in Language Evolution. Studies in Fuzziness and Soft Computing, 2013, , 265-286.	0.6	0
88	Method for Uncertainty Measurement and Its Application to the Formation of Interval Type-2 Fuzzy Sets. Advances in Intelligent Systems and Computing, 2016, , 61-74.	0.5	0
89	Experimentation and Results Discussion. SpringerBriefs in Applied Sciences and Technology, 2017, , 43-75.	0.2	0