Rafael AlcalÃ¡

List of Publications by Year
in descending order

65 papers	3,197 citations	236612 25 h-index	197535 49 g-index
69 all docs	69 docs citations	69 times ranked	1724 citing authors

#	Article	IF	Citations
1	Mining high average-utility sequential rules to identify high-utility gene expression sequences in longitudinal human studies. Expert Systems With Applications, 2022, 193, 116411.	4.4	8
2	Transparent but Accurate Evolutionary Regression Combining New Linguistic Fuzzy Grammar and a Novel Interpretable Linear Extension. International Journal of Fuzzy Systems, 2022, 24, 3082-3103.	2.3	4
3	Meta-Fuzzy Items for Fuzzy Association Rules. , 2021, , .		2
4	Temporal association rule mining: An overview considering the time variable as an integral or implied component. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2020, 10, e1367.	4.6	13
5	eXplainable Artificial Intelligence (XAI) for the identification of biologically relevant gene expression patterns in longitudinal human studies, insights from obesity research. PLoS Computational Biology, 2020, 16, e1007792.	1.5	44
6	Title is missing!. , 2020, 16, e1007792.		0
7	Title is missing!. , 2020, 16, e1007792.		0
8	Title is missing!. , 2020, 16, e1007792.		0
9	Title is missing!. , 2020, 16, e1007792.		0
10	Experimental Study on 164 Algorithms Available in Software Tools for Solving Standard Non-Linear Regression Problems. IEEE Access, 2019, 7, 108916-108939.	2.6	15
11	Describing Sequential Association Patterns from Longitudinal Microarray Data Sets in Humans. Lecture Notes in Computer Science, 2019, , 318-329.	1.0	1
12	Evolutionary data mining and applications: A revision on the most cited papers from the last 10 years (2007â€“2017). Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2018, 8, e1239.	4.6	5
13	Evolutionary Fuzzy Rule-Based Methods for Monotonic Classification. IEEE Transactions on Fuzzy Systems, 2017, 25, 1376-1390.	6.5	36
14	A multi-objective evolutionary method for learning granularities based on fuzzy discretization to improve the accuracy-complexity trade-off of fuzzy rule-based classification systems: D-MOFARC algorithm. Applied Soft Computing Journal, 2014, 24, 470-481.	4.1	55
15	METSK-HDe: A multiobjective evolutionary algorithm to learn accurate TSK-fuzzy systems in high-dimensional and large-scale regression problems. Information Sciences, 2014, 276, 63-79.	4.0	59
16	Comparison and design of interpretable linguistic vs. scatter FRBSs: Gm3m generalization and new rule meaning index for global assessment and local pseudo-linguistic representation. Information Sciences, 2014, 282, 190-213.	4.0	10
17	A study on the application of instance selection techniques in genetic fuzzy rule-based classification systems: Accuracy-complexity trade-off. Knowledge-Based Systems, 2013, 54, 32-41.	4.0	25
18	Obtaining accurate TSK Fuzzy Rule-Based Systems by Multi-Objective Evolutionary Learning in high-dimensional regression problems. , 2013, , .		2

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19	A Review of the Application of Multiobjective Evolutionary Fuzzy Systems: Current Status and Further Directions. IEEE Transactions on Fuzzy Systems, 2013, 21, 45-65.	6.5	321
20	Improving a fuzzy association rule-based classification model by granularity learning based on heuristic measures over multiple granularities. , 2013, , .		4
21	Automatic Laser Pointer Detection Algorithm for Environment Control Device Systems Based on Template Matching and Genetic Tuning of Fuzzy Rule-Based Systems. International Journal of Computational Intelligence Systems, 2012, 5, 368-386.	1.6	8
22	A case study on the application of instance selection techniques for Genetic Fuzzy Rule-Based Classifiers. , 2012, , .		3
23	Special Issue on Evolutionary Fuzzy Systems. International Journal of Computational Intelligence Systems, 2012, 5, 209.	1.6	6
24	A multi-objective evolutionary algorithm for an effective tuning ofÂfuzzy logic controllers inÂheating, ventilating and air conditioning systems. Applied Intelligence, 2012, 36, 330-347.	3.3	59
25	Hybrid laser pointer detection algorithm based on template matching and fuzzy rule-based systems for domotic control inÂrealÂhome environments. Applied Intelligence, 2012, 36, 407-423.	3.3	14
26	Evolutionary Multi-Objective Algorithm to effectively improve the performance of the classic tuning of fuzzy logic controllers for a heating, ventilating and Air Conditioning system. , 2011, , .		5
27	Evolutionary learning of a laser pointer detection fuzzy system for an environment control system. , 2011, , .		5
28	A Fuzzy Association Rule-Based Classification Model for High-Dimensional Problems With Genetic Rule Selection and Lateral Tuning. IEEE Transactions on Fuzzy Systems, 2011, 19, 857-872.	6.5	274
29	Special issue on evolutionary fuzzy systems. Soft Computing, 2011, 15, 2299-2301.	2.1	8
30	Multiobjective genetic fuzzy rule selection of single granularity-based fuzzy classification rules and its interaction with the lateral tuning of membership functions. Soft Computing, 2011, 15, 2303-2318.	2.1	82
31	Interpretability of linguistic fuzzy rule-based systems: An overview of interpretability measures. Information Sciences, 2011, 181, 4340-4360.	4.0	428
32	Musical genre classification by means of Fuzzy Rule-Based Systems: A preliminary approach. , 2011, , .		6
33	A Fast and Scalable Multiobjective Genetic Fuzzy System for Linguistic Fuzzy Modeling in High-Dimensional Regression Problems. IEEE Transactions on Fuzzy Systems, 2011, 19, 666-681.	6.5	139
34	A case study for learning behaviors in mobile robotics by evolutionary fuzzy systems. Expert Systems With Applications, 2010, 37, 1471-1493.	4.4	12
35	Genetic tuning of a laser pointer environment control device system for handicapped people with fuzzy systems. , 2010, , .		6
36	Integration of an Index to Preserve the Semantic Interpretability in the Multiobjective Evolutionary Rule Selection and Tuning of Linguistic Fuzzy Systems. IEEE Transactions on Fuzzy Systems, 2010, 18, 515-531.	6.5	141

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37	A fuzzy associative classification system with genetic rule selection for high-dimensional problems. , 2010, , .		0
38	On the Use of Distributed Genetic Algorithms for the Tuning of Fuzzy Rule Based-Systems. Studies in Computational Intelligence, 2010, , 235-261.	0.7	1
39	Analysis of the Performance of a Semantic Interpretability-Based Tuning and Rule Selection of Fuzzy Rule-Based Systems by Means of a Multi-Objective Evolutionary Algorithm. Lecture Notes in Computer Science, 2010, , 228-238.	1.0	0
40	A Multiobjective Evolutionary Approach to Concurrently Learn Rule and Data Bases of Linguistic Fuzzy-Rule-Based Systems. IEEE Transactions on Fuzzy Systems, 2009, 17, 1106-1122.	6.5	153
41	Learning weighted linguistic rules to control an autonomous robot. International Journal of Intelligent Systems, 2009, 24, 226-251.	3.3	13
42	Adaptation and application of multi-objective evolutionary algorithms for rule reduction and parameter tuning of fuzzy rule-based systems. Soft Computing, 2009, 13, 419-436.	2.1	121
43	Improving fuzzy logic controllers obtained by experts: a case study in HVAC systems. Applied Intelligence, 2009, 31, 15-30.	3.3	46
44	Evolutionary parallel and gradually distributed lateral tuning of fuzzy rule-based systems. Evolutionary Intelligence, 2009, 2, 5-19.	2.3	20
45	Special issue on genetic fuzzy systems: new advances. Evolutionary Intelligence, 2009, 2, 1-3.	2.3	3
46	Learning the membership function contexts for mining fuzzy association rules by using genetic algorithms. Fuzzy Sets and Systems, 2009, 160, 905-921.	1.6	154
47	Generating single granularity-based fuzzy classification rules for multiobjective genetic fuzzy rule selection. , 2009, , .		11
48	Handling High-Dimensional Regression Problems by Means of an Efficient Multi-Objective Evolutionary Algorithm. , 2009, , .		4
49	Knowledge Base Learning of Linguistic Fuzzy Rule-Based Systems in a Multi-objective Evolutionary Framework. Lecture Notes in Computer Science, 2008, , 747-754.	1.0	2
50	Genetic Learning of Membership Functions for Mining Fuzzy Association Rules. IEEE International Conference on Fuzzy Systems, 2007, , .	0.0	10
51	Guest Editorial Genetic Fuzzy Systems: What's Next? An Introduction to the Special Section. IEEE Transactions on Fuzzy Systems, 2007, 15, 533-535.	6.5	24
52	A Proposal for the Genetic Lateral Tuning of Linguistic Fuzzy Systems and Its Interaction With Rule Selection. IEEE Transactions on Fuzzy Systems, 2007, 15, 616-635.	6.5	164
53	A Multi-Objective Evolutionary Algorithm for Rule Selection and Tuning on Fuzzy Rule-Based Systems. IEEE International Conference on Fuzzy Systems, 2007, , .	0.0	10
54	A MULTI-OBJECTIVE GENETIC ALGORITHM FOR TUNING AND RULE SELECTION TO OBTAIN ACCURATE AND COMPACT LINGUISTIC FUZZY RULE-BASED SYSTEMS. International Journal of Uncertainty, Fuzziness and Knowlege-Based Systems, 2007, 15, 539-557.	0.9	109

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55	Local identification of prototypes for genetic learning of accurate TSK fuzzy rule-based systems. International Journal of Intelligent Systems, 2007, 22, 909-941.	3.3	54
56	Genetic learning of accurate and compact fuzzy rule based systems based on the 2-tuples linguistic representation. International Journal of Approximate Reasoning, 2007, 44, 45-64.	1.9	104
57	Hybrid learning models to get the interpretabilityâ€“accuracy trade-off in fuzzy modeling. Soft Computing, 2006, 10, 717-734.	2.1	82
58	Rule Base Reduction and Genetic Tuning of Fuzzy Systems Based on the Linguistic 3-tuples Representation. Soft Computing, 2006, 11, 401-419.	2.1	45
59	A genetic rule weighting and selection process for fuzzy control of heating, ventilating and air conditioning systems. Engineering Applications of Artificial Intelligence, 2005, 18, 279-296.	4.3	100
60	Fuzzy Control of HVAC Systems Optimized by Genetic Algorithms. Applied Intelligence, 2003, 18, 155-177.	3.3	97
61	Linguistic modeling with hierarchical systems of weighted linguistic rules. International Journal of Approximate Reasoning, 2003, 32, 187-215.	1.9	27
62	Combining Rule Weight Learning and Rule Selection to Obtain Simpler and More Accurate Linguistic Fuzzy Models. Lecture Notes in Computer Science, 2003, , 44-63.	1.0	6
63	Linguistic modeling with weighted double-consequent fuzzy rules based on cooperative coevolutionary learning. Integrated Computer-Aided Engineering, 2003, 10, 343-355.	2.5	18
64	Improving Simple Linguistic Fuzzy Models by Means of the Weighted COR Methodology. Lecture Notes in Computer Science, 2002, , 294-302.	1.0	6
65	Genetic tuning on fuzzy systems based on the linguistic 2-tuples representation. , 0, , .		11