

# Edurne Barrenechea

## List of Publications by Citations

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105  
papers

5,109  
citations

33  
h-index

71  
g-index

120  
ext. papers

6,047  
ext. citations

4.4  
avg, IF

5.68  
L-index

#	Paper	IF	Citations
105	A Review on Ensembles for the Class Imbalance Problem: Bagging-, Boosting-, and Hybrid-Based Approaches. <i>IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews</i> , <b>2012</b> , 42, 463-484		1372
104	An overview of ensemble methods for binary classifiers in multi-class problems: Experimental study on one-vs-one and one-vs-all schemes. <i>Pattern Recognition</i> , <b>2011</b> , 44, 1761-1776	7.7	465
103	A Historical Account of Types of Fuzzy Sets and Their Relationships. <i>IEEE Transactions on Fuzzy Systems</i> , <b>2016</b> , 24, 179-194	8.3	285
102	EUSBoost: Enhancing ensembles for highly imbalanced data-sets by evolutionary undersampling. <i>Pattern Recognition</i> , <b>2013</b> , 46, 3460-3471	7.7	242
101	Interval-valued fuzzy sets constructed from matrices: Application to edge detection. <i>Fuzzy Sets and Systems</i> , <b>2009</b> , 160, 1819-1840	3.7	176
100	Image thresholding using restricted equivalence functions and maximizing the measures of similarity. <i>Fuzzy Sets and Systems</i> , <b>2007</b> , 158, 496-516	3.7	135
99	Restricted equivalence functions. <i>Fuzzy Sets and Systems</i> , <b>2006</b> , 157, 2333-2346	3.7	129
98	Construction of fuzzy indices from fuzzy DI-subsethood measures: Application to the global comparison of images. <i>Information Sciences</i> , <b>2007</b> , 177, 906-929	7.7	115
97	Relationship between restricted dissimilarity functions, restricted equivalence functions and normal EN-functions: Image thresholding invariant. <i>Pattern Recognition Letters</i> , <b>2008</b> , 29, 525-536	4.7	112
96	Interval Type-2 Fuzzy Sets are Generalization of Interval-Valued Fuzzy Sets: Toward a Wider View on Their Relationship. <i>IEEE Transactions on Fuzzy Systems</i> , <b>2015</b> , 23, 1876-1882	8.3	102
95	New results on overlap and grouping functions. <i>Information Sciences</i> , <b>2013</b> , 249, 148-170	7.7	102
94	New method to assess barley nitrogen nutrition status based on image colour analysis. <i>Computers and Electronics in Agriculture</i> , <b>2009</b> , 65, 213-218	6.5	98
93	Enhancing Multiclass Classification in FARC-HD Fuzzy Classifier: On the Synergy Between $n$ -Dimensional Overlap Functions and Decomposition Strategies. <i>IEEE Transactions on Fuzzy Systems</i> , <b>2015</b> , 23, 1562-1580	8.3	92
92	Definition and construction of fuzzy DI-subsethood measures. <i>Information Sciences</i> , <b>2006</b> , 176, 3190-3231	7.7	91
91	A survey on fingerprint minutiae-based local matching for verification and identification: Taxonomy and experimental evaluation. <i>Information Sciences</i> , <b>2015</b> , 315, 67-87	7.7	82
90	Construction of interval-valued fuzzy preference relations from ignorance functions and fuzzy preference relations. Application to decision making. <i>Knowledge-Based Systems</i> , <b>2014</b> , 58, 33-44	7.3	79
89	Construction of Interval-Valued Fuzzy Relations With Application to the Generation of Fuzzy Edge Images. <i>IEEE Transactions on Fuzzy Systems</i> , <b>2011</b> , 19, 819-830	8.3	79

88	Ignorance functions. An application to the calculation of the threshold in prostate ultrasound images. <i>Fuzzy Sets and Systems</i> , <b>2010</b> , 161, 20-36	3.7	76
87	Dynamic classifier selection for One-vs-One strategy: Avoiding non-competent classifiers. <i>Pattern Recognition</i> , <b>2013</b> , 46, 3412-3424	7.7	75
86	Generation of interval-valued fuzzy and atanasov's intuitionistic fuzzy connectives from fuzzy connectives and from K <sub>0</sub> operators: Laws for conjunctions and disjunctions, amplitude. <i>International Journal of Intelligent Systems</i> , <b>2008</b> , 23, 680-714	8.4	71
85	Interval Type-2 Fuzzy Sets Constructed From Several Membership Functions: Application to the Fuzzy Thresholding Algorithm. <i>IEEE Transactions on Fuzzy Systems</i> , <b>2013</b> , 21, 230-244	8.3	66
84	n-Dimensional overlap functions. <i>Fuzzy Sets and Systems</i> , <b>2016</b> , 287, 57-75	3.7	64
83	Multiscale edge detection based on Gaussian smoothing and edge tracking. <i>Knowledge-Based Systems</i> , <b>2013</b> , 44, 101-111	7.3	63
82	DRCW-OVO: Distance-based relative competence weighting combination for One-vs-One strategy in multi-class problems. <i>Pattern Recognition</i> , <b>2015</b> , 48, 28-42	7.7	61
81	Consensus in multi-expert decision making problems using penalty functions defined over a Cartesian product of lattices. <i>Information Fusion</i> , <b>2014</b> , 17, 56-64	16.7	57
80	Ordering-based pruning for improving the performance of ensembles of classifiers in the framework of imbalanced datasets. <i>Information Sciences</i> , <b>2016</b> , 354, 178-196	7.7	55
79	Image segmentation using Atanasov's intuitionistic fuzzy sets. <i>Expert Systems With Applications</i> , <b>2013</b> , 40, 15-26	7.8	55
78	Solving multi-class problems with linguistic fuzzy rule based classification systems based on pairwise learning and preference relations. <i>Fuzzy Sets and Systems</i> , <b>2010</b> , 161, 3064-3080	3.7	53
77	Using the Choquet Integral in the Fuzzy Reasoning Method of Fuzzy Rule-Based Classification Systems. <i>Axioms</i> , <b>2013</b> , 2, 208-223	1.6	47
76	An alternative to fuzzy methods in decision-making problems. <i>Expert Systems With Applications</i> , <b>2012</b> , 39, 7729-7735	7.8	43
75	A survey of fingerprint classification Part I: Taxonomies on feature extraction methods and learning models. <i>Knowledge-Based Systems</i> , <b>2015</b> , 81, 76-97	7.3	42
74	Lamb muscle discrimination using hyperspectral imaging: Comparison of various machine learning algorithms. <i>Journal of Food Engineering</i> , <b>2016</b> , 174, 92-100	6	36
73	Semiautoduality in a restricted family of aggregation operators. <i>Fuzzy Sets and Systems</i> , <b>2007</b> , 158, 1360-1377	3.7	36
72	A survey of fingerprint classification Part II: Experimental analysis and ensemble proposal. <i>Knowledge-Based Systems</i> , <b>2015</b> , 81, 98-116	7.3	31
71	Ordered Directionally Monotone Functions: Justification and Application. <i>IEEE Transactions on Fuzzy Systems</i> , <b>2018</b> , 26, 2237-2250	8.3	30

70	Comment on: Image thresholding using type II fuzzy sets Importance of this method. <i>Pattern Recognition</i> , <b>2010</b> , 43, 3188-3192	7.7	28
69	Empowering difficult classes with a similarity-based aggregation in multi-class classification problems. <i>Information Sciences</i> , <b>2014</b> , 264, 135-157	7.7	26
68	Forest fire detection: A fuzzy system approach based on overlap indices. <i>Applied Soft Computing Journal</i> , <b>2017</b> , 52, 834-842	7.5	25
67	INTUITIONISTIC FUZZY IMPLICATION OPERATORS AN EXPRESSION AND MAIN PROPERTIES. <i>International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems</i> , <b>2004</b> , 12, 387-406	0.8	24
66	GENERALIZED ATANASSOV'S INTUITIONISTIC FUZZY INDEX: CONSTRUCTION OF ATANASSOV'S FUZZY ENTROPY FROM FUZZY IMPLICATION OPERATORS. <i>International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems</i> , <b>2011</b> , 19, 51-69	0.8	21
65	Paired structures in knowledge representation. <i>Knowledge-Based Systems</i> , <b>2016</b> , 100, 50-58	7.3	19
64	A Survey of Interval-Valued Fuzzy Sets 489-515		18
63	WEAK FUZZY S-SUBSETHOOD MEASURES: OVERLAP INDEX. <i>International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems</i> , <b>2006</b> , 14, 537-560	0.8	18
62	. <i>IEEE Transactions on Fuzzy Systems</i> , <b>2020</b> , 28, 163-177	8.3	18
61	Contrast of a fuzzy relation. <i>Information Sciences</i> , <b>2010</b> , 180, 1326-1344	7.7	15
60	NMC: nearest matrix classification A new combination model for pruning One-vs-One ensembles by transforming the aggregation problem. <i>Information Fusion</i> , <b>2017</b> , 36, 26-51	16.7	14
59	Interval-valued fuzzy strong S-subsethood measures, interval-entropy and P-interval-entropy. <i>Information Sciences</i> , <b>2018</b> , 432, 97-115	7.7	14
58	Segmentation of color images using a linguistic 2-tuples model. <i>Information Sciences</i> , <b>2014</b> , 258, 339-352 7.7	7.7	11
57	Image Thresholding Computation Using Atanassov's Intuitionistic Fuzzy Sets. <i>Journal of Advanced Computational Intelligence and Intelligent Informatics</i> , <b>2007</b> , 11, 187-194	0.4	10
56	An interval extension of homogeneous and pseudo-homogeneous t-norms and t-conorms. <i>Information Sciences</i> , <b>2016</b> , 355-356, 328-347	7.7	9
55	Construction of interval-valued fuzzy entropy invariant by translations and scalings. <i>Soft Computing</i> , <b>2010</b> , 14, 945-952	3.5	9
54	Construction of Interval Type 2 Fuzzy Images to Represent Images in Grayscale. False Edges. <i>IEEE International Conference on Fuzzy Systems</i> , <b>2007</b> ,		9
53	Optical images-based edge detection in Synthetic Aperture Radar images. <i>Knowledge-Based Systems</i> , <b>2015</b> , 87, 38-46	7.3	7

52	Construction of Typical Hesitant Triangular Norms regarding Xu-Xia-partial Order		6
51	Similarity measures, penalty functions, and fuzzy entropy from new fuzzy subsethood measures. <i>International Journal of Intelligent Systems</i> , <b>2019</b> , 34, 1281-1302	8.4	5
50	Co-occurrence of deep convolutional features for image search. <i>Image and Vision Computing</i> , <b>2020</b> , 97, 103909	3.7	5
49	Representing images by means of interval-valued fuzzy sets. Application to stereo matching <b>2011</b> ,		5
48	Uncertainty in multilevel image thresholding using Atanassov's intuitionistic fuzzy sets <b>2008</b> ,		5
47	Construction of Interval-Valued Fuzzy Preference Relations Using Ignorance Functions: Interval-Valued Non Dominance Criterion. <i>Advances in Intelligent and Soft Computing</i> , <b>2011</b> , 243-255		5
46	Moderate deviation and restricted equivalence functions for measuring similarity between data. <i>Information Sciences</i> , <b>2019</b> , 501, 19-29	7.7	4
45	Unbalanced interval-valued OWA operators. <i>Progress in Artificial Intelligence</i> , <b>2016</b> , 5, 207-214	4	4
44	The Origin of Fuzzy Extensions <b>2015</b> , 89-112		4
43	The Notions of Overlap and Grouping Functions. <i>Studies in Fuzziness and Soft Computing</i> , <b>2016</b> , 137-156	0.7	4
42	A t-Norm Based Approach to Edge Detection. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 302-309	0.9	4
41	Edge Detection on Interval-Valued Images. <i>Advances in Intelligent and Soft Computing</i> , <b>2011</b> , 325-337		4
40	Engineering outreach programs at the Public University of Navarre: A holistic approach <b>2013</b> ,		3
39	Analysis of women enrollment in Engineering programs at the Public University of Navarre <b>2014</b> ,		3
38	Topological interpretations of fuzzy subsets. A unified approach for fuzzy thresholding algorithms. <i>Knowledge-Based Systems</i> , <b>2013</b> , 54, 163-171	7.3	3
37	Learning ordered pooling weights in image classification. <i>Neurocomputing</i> , <b>2020</b> , 411, 45-53	5.4	3
36	A Study on the Cardinality of Ordered Average Pooling in Visual Recognition. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 437-444	0.9	2
35	Multiscale edge detection based on the Sobel method <b>2011</b> ,		2

34	Laws for conjunctions and disjunctions in interval type 2 fuzzy sets <b>2008</b> ,		2
33	A method for constructing V. Young's fuzzy subethood measures and fuzzy entropies <b>2006</b> ,		2
32	CONTRAST COMPUTING USING ATANASSOV'S INTUITIONISTIC FUZZY SETS <b>2008</b> ,		2
31	Edge Detection Based on Ordered Directionally Monotone Functions. <i>Advances in Intelligent Systems and Computing</i> , <b>2018</b> , 301-307	0.4	2
30	Ordered directional monotonicity in the construction of edge detectors. <i>Fuzzy Sets and Systems</i> , <b>2021</b> , 421, 111-132	3.7	2
29	University-industry collaboration chairs: Initiatives at the Public University of Navarre <b>2014</b> ,		1
28	Engineering international programs at the public university of Navarre: A satisfactory on-going experience in a context of industrial globalization <b>2014</b> ,		1
27	OWA Operators and Choquet Integrals in the Interval-Valued Setting. <i>Studies in Fuzziness and Soft Computing</i> , <b>2017</b> , 65-79	0.7	1
26	Use of OWA operators for feature aggregation in image classification <b>2017</b> ,		1
25	Construction of Interval Type-2 Fuzzy Sets From Fuzzy Sets: Methods and Applications. <i>Studies in Fuzziness and Soft Computing</i> , <b>2013</b> , 147-163	0.7	1
24	A A-IFSs Based Image Segmentation Methodology for Gait Analysis <b>2009</b> ,		1
23	Ignorance-Based Fuzzy Clustering Algorithm <b>2009</b> ,		1
22	Image Threshold Using A-IFSs Based on Bounded Histograms. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 96-103	0.9	1
21	On the Use of Lattice OWA Operators in Image Reduction and the Importance of the Orness Measure. <i>Communications in Computer and Information Science</i> , <b>2016</b> , 624-634	0.3	1
20	Image Threshold Computation by Modeling Knowledge/Unknowledge by Means of Atanassov's Intuitionistic Fuzzy Sets <b>2008</b> , 621-638		1
19	New Ordering-Based Pruning Metrics for Ensembles of Classifiers in Imbalanced Datasets. <i>Advances in Intelligent Systems and Computing</i> , <b>2016</b> , 3-15	0.4	1
18	Aggregation of Color Information in Stereo Matching Problem: A Comparison Study. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 369-378	0.9	1
17	A Preliminary Study of the Usage of Similarity Measures to Detect Singular Points in Fingerprint Images. <i>Advances in Intelligent Systems and Computing</i> , <b>2013</b> , 367-378	0.4	1

16	A Survey of Atanassov's Intuitionistic Fuzzy Relations. <i>Studies in Fuzziness and Soft Computing</i> , <b>2016</b> , 65-78.	7	1
15	Generation of Interval-Valued Fuzzy Negations from Trillas's Theorem. The Case of Interval Type-2 Fuzzy Sets. <i>Studies in Fuzziness and Soft Computing</i> , <b>2015</b> , 93-108	0.7	0
14	Combination of features through weighted ensembles for image classification. <i>Applied Soft Computing Journal</i> , <b>2019</b> , 84, 105698	7.5	0
13	Strengthened Ordered Directional and Other Generalizations of Monotonicity for Aggregation Functions. <i>Communications in Computer and Information Science</i> , <b>2018</b> , 416-426	0.3	0
12	A Survey of Applications of the Extensions of Fuzzy Sets to Image Processing. <i>Studies in Computational Intelligence</i> , <b>2009</b> , 3-32	0.8	0
11	Unbalanced OWA Operators for Atanassov Intuitionistic Fuzzy Sets. <i>Communications in Computer and Information Science</i> , <b>2016</b> , 435-444	0.3	
10	Multiscale Extension of the Gravitational Approach to Edge Detection. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 283-292	0.9	
9	A Method for Constructing V. Young's Fuzzy Subsethood Measures and Fuzzy Entropies. <i>Studies in Computational Intelligence</i> , <b>2008</b> , 123-138	0.8	
8	From Trillas's Negations and Antonyms to a Set Representation of Contradiction Within Bipolar and Other Extensions of Fuzzy Sets. <i>Studies in Fuzziness and Soft Computing</i> , <b>2015</b> , 159-177	0.7	
7	Semi-properties of Atanassov Intuitionistic Fuzzy Relations. <i>Advances in Intelligent Systems and Computing</i> , <b>2016</b> , 137-147	0.4	
6	The Need to Use Fuzzy Extensions in Fuzzy Thresholding Algorithms. <i>Studies in Fuzziness and Soft Computing</i> , <b>2010</b> , 219-235	0.7	
5	Upper Bounding Overlaps by Groupings. <i>Advances in Intelligent Systems and Computing</i> , <b>2013</b> , 355-365	0.4	
4	Decision Making with Extensions of Fuzzy Sets: An Application to Disaster Management. <i>Atlantis Computational Intelligence Systems</i> , <b>2013</b> , 189-207		
3	Neutrality in Bipolar Structures. <i>Advances in Intelligent Systems and Computing</i> , <b>2014</b> , 11-17	0.4	
2	Clustering Based on a Mixture of Fuzzy Models Approach. <i>Communications in Computer and Information Science</i> , <b>2014</b> , 475-484	0.3	
1	Improving the Performance of FARC-HD in Multi-class Classification Problems Using the One-Versus-One Strategy and an Adaptation of the Inference System. <i>Communications in Computer and Information Science</i> , <b>2014</b> , 296-306	0.3	