

# Basilio Sierra

## List of Publications by Year in descending order

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87  
papers

1,576  
citations

394286

19  
h-index

330025

37  
g-index

88  
all docs

88  
docs citations

88  
times ranked

1769  
citing authors

#	ARTICLE	IF	CITATIONS
1	Data fusion and machine learning for industrial prognosis: Trends and perspectives towards Industry 4.0. <i>Information Fusion</i> , 2019, 50, 92-111.	11.7	373
2	Feature subset selection by Bayesian networks: a comparison with genetic and sequential algorithms. <i>International Journal of Approximate Reasoning</i> , 2001, 27, 143-164.	1.9	107
3	GENE SELECTION FOR CANCER CLASSIFICATION USING WRAPPER APPROACHES. <i>International Journal of Pattern Recognition and Artificial Intelligence</i> , 2004, 18, 1373-1390.	0.7	68
4	Predicting survival in malignant skin melanoma using Bayesian networks automatically induced by genetic algorithms. An empirical comparison between different approaches. <i>Artificial Intelligence in Medicine</i> , 1998, 14, 215-230.	3.8	64
5	Video Activity Recognition: State-of-the-Art. <i>Sensors</i> , 2019, 19, 3160.	2.1	55
6	Using Bayesian networks in the construction of a bi-level multi-classifier. A case study using intensive care unit patients data. <i>Artificial Intelligence in Medicine</i> , 2001, 22, 233-248.	3.8	53
7	Application of Bayesian networks in prognostics for a new Integrated Vehicle Health Management concept. <i>Expert Systems With Applications</i> , 2012, 39, 6402-6418.	4.4	51
8	Online Student Authentication and Proctoring System Based on Multimodal Biometrics Technology. <i>IEEE Access</i> , 2021, 9, 72398-72411.	2.6	47
9	Data mining for quality control: Burr detection in the drilling process. <i>Computers and Industrial Engineering</i> , 2011, 60, 801-810.	3.4	41
10	Data-driven prognostics using a combination of constrained K-means clustering, fuzzy modeling and LOF-based score. <i>Neurocomputing</i> , 2017, 241, 97-107.	3.5	41
11	A Method for Detecting Coffee Leaf Rust through Wireless Sensor Networks, Remote Sensing, and Deep Learning: Case Study of the Caturra Variety in Colombia. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 697.	1.3	35
12	Layered architecture for real time sign recognition: Hand gesture and movement. <i>Engineering Applications of Artificial Intelligence</i> , 2010, 23, 1216-1228.	4.3	34
13	RGB-D, Laser and Thermal Sensor Fusion for People following in a Mobile Robot. <i>International Journal of Advanced Robotic Systems</i> , 2013, 10, 271.	1.3	33
14	Predictive Maintenance on the Machining Process and Machine Tool. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 224.	1.3	33
15	Classifier Subset Selection to construct multi-classifiers by means of estimation of distribution algorithms. <i>Neurocomputing</i> , 2015, 157, 46-60.	3.5	32
16	LEARNING BAYESIAN NETWORKS IN THE SPACE OF ORDERINGS WITH ESTIMATION OF DISTRIBUTION ALGORITHMS. <i>International Journal of Pattern Recognition and Artificial Intelligence</i> , 2004, 18, 607-625.	0.7	25
17	Kernel-based support vector machines for automated health status assessment in monitoring sensor data. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 95, 327-340.	1.5	24
18	Evolutionary LSTM-FCN networks for pattern classification in industrial processes. <i>Swarm and Evolutionary Computation</i> , 2020, 54, 100650.	4.5	24

#	ARTICLE	IF	CITATIONS
19	Towards Application of One-Class Classification Methods to Medical Data. Scientific World Journal, The, 2014, 2014, 1-7.	0.8	21
20	Periocular and iris local descriptors for identity verification in mobile applications. Pattern Recognition Letters, 2017, 91, 52-59.	2.6	19
21	Innovative Mobile Manipulator Solution for Modern Flexible Manufacturing Processes. Sensors, 2019, 19, 5414.	2.1	19
22	Classifier Subset Selection for the Stacked Generalization Method Applied to Emotion Recognition in Speech. Sensors, 2016, 16, 21.	2.1	17
23	A Multi-Disciplinary Approach to Remote Sensing through Low-Cost UAVs. Sensors, 2017, 17, 1411.	2.1	16
24	Fusing multiple image transformations and a thermal sensor with kinect to improve person detection ability. Engineering Applications of Artificial Intelligence, 2013, 26, 1980-1991.	4.3	15
25	Feature Selection for Speech Emotion Recognition in Spanish and Basque: On the Use of Machine Learning to Improve Human-Computer Interaction. PLoS ONE, 2014, 9, e108975.	1.1	15
26	Shedding Light on People Action Recognition in Social Robotics by Means of Common Spatial Patterns. Sensors, 2020, 20, 2436.	2.1	15
27	Dynamic condition monitoring method based on dimensionality reduction techniques for data-limited industrial environments. Computers in Industry, 2019, 112, 103114.	5.7	14
28	A multiclass/multilabel document categorization system: Combining multiple classifiers in a reduced dimension. Applied Soft Computing Journal, 2011, 11, 4981-4990.	4.1	12
29	On the Use of a Low-Cost Thermal Sensor to Improve Kinect People Detection in a Mobile Robot. Sensors, 2013, 13, 14687-14713.	2.1	12
30	3D Convolutional Neural Networks Initialized from Pretrained 2D Convolutional Neural Networks for Classification of Industrial Parts. Sensors, 2021, 21, 1078.	2.1	12
31	Feature Subset Selection Based on Evolutionary Algorithms for Automatic Emotion Recognition in Spoken Spanish and Standard Basque Language. Lecture Notes in Computer Science, 2006, , 565-572.	1.0	11
32	Statistics-Based Music Generation Approach Considering Both Rhythm and Melody Coherence. IEEE Access, 2019, 7, 183365-183382.	2.6	10
33	BAYES-NEAREST: A New Hybrid Classifier Combining Bayesian Network and Distance Based Algorithms. Lecture Notes in Computer Science, 2003, , 171-183.	1.0	10
34	Layered Architecture for Real-Time Sign Recognition. Computer Journal, 2010, 53, 1169-1183.	1.5	9
35	User Adapted Motor-Imaginary Brain-Computer Interface by means of EEG Channel Selection Based on Estimation of Distributed Algorithms. Mathematical Problems in Engineering, 2016, 2016, 1-12.	0.6	9
36	Towards the use of similarity distances to music genre classification: A comparative study. PLoS ONE, 2018, 13, e0191417.	1.1	9

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37	Quantile regression forests-based modeling and environmental indicators for decision support in broiler farming. Computers and Electronics in Agriculture, 2019, 161, 141-150.	3.7	9
38	A Bayesian network for burr detection in the drilling process. Journal of Intelligent Manufacturing, 2012, 23, 1463-1475.	4.4	8
39	Trace Transform Based Method for Color Image Domain Identification. IEEE Transactions on Multimedia, 2014, 16, 679-685.	5.2	8
40	An Agave Counting Methodology Based on Mathematical Morphology and Images Acquired through Unmanned Aerial Vehicles. Sensors, 2020, 20, 6247.	2.1	8
41	Adaptive Dendritic Cell-Deep Learning Approach for Industrial Prognosis Under Changing Conditions. IEEE Transactions on Industrial Informatics, 2021, 17, 7760-7770.	7.2	8
42	A Hybrid Machine-Learning Ensemble for Anomaly Detection in Real-Time Industry 4.0 Systems. IEEE Access, 2022, 10, 72024-72036.	2.6	8
43	ICGE: an R package for detecting relevant clusters and atypical units in gene expression. BMC Bioinformatics, 2012, 13, 30.	1.2	7
44	Comparison of machine learning algorithms for optimization and improvement of process quality in conventional metallic materials. International Journal of Advanced Manufacturing Technology, 2012, 60, 237-249.	1.5	7
45	Selection and Fusion of Spectral Indices to Improve Water Body Discrimination. IEEE Access, 2018, 6, 72952-72961.	2.6	7
46	Bertsobot: The first minstrel robot. , 2013, , .		6
47	Combining Singular Value Decomposition and a multi-classifier: A new approach to support coreference resolution. Engineering Applications of Artificial Intelligence, 2015, 46, 279-286.	4.3	6
48	Loop-closing: A typicality approach. Robotics and Autonomous Systems, 2011, 59, 218-227.	3.0	5
49	method: NOV@. Expert Systems With Applications, 2014, 41, 6251-6260.	4.4	5
50	Iris matching by means of Machine Learning paradigms: A new approach to dissimilarity computation. Pattern Recognition Letters, 2017, 91, 60-64.	2.6	5
51	Deep evolutionary modeling of condition monitoring data in marine propulsion systems. Soft Computing, 2019, 23, 9937-9953.	2.1	5
52	Hybrid modelling for linear actuator diagnosis in absence of faulty data records. Computers in Industry, 2020, 123, 103339.	5.7	5
53	Histogram-Based Descriptor Subset Selection for Visual Recognition of Industrial Parts. Applied Sciences (Switzerland), 2020, 10, 3701.	1.3	5
54	A New Approach for Video Action Recognition: CSP-Based Filtering for Video to Image Transformation. IEEE Access, 2021, 9, 139946-139957.	2.6	5

#	ARTICLE	IF	CITATIONS
55	Problems selection under dynamic selection of the best base classifier in one versus one: PSEUDOVO. International Journal of Machine Learning and Cybernetics, 2021, 12, 1721-1735.	2.3	4
56	A Real Application of an Autonomous Industrial Mobile Manipulator within Industrial Context. Electronics (Switzerland), 2021, 10, 1276.	1.8	4
57	Kernel Density-Based Pattern Classification in Blind Fasteners Installation. Lecture Notes in Computer Science, 2017, , 195-206.	1.0	4
58	Efficient large-scale face clustering using an online Mixture of Gaussians. Engineering Applications of Artificial Intelligence, 2022, 114, 105079.	4.3	4
59	Architecture for semi-automatic multimedia analysis by hypothesis reinforcement. , 2009, , .		3
60	Comparison of Automated Feature Selection and Reduction methods on the Condition Monitoring issue. Procedia Manufacturing, 2018, 16, 2-9.	1.9	3
61	Learning Optimal Time Series Combination and Pre-Processing by Smart Joins. Applied Sciences (Switzerland), 2020, 10, 6346.	1.3	3
62	Data Augmentation for Industrial Prognosis Using Generative Adversarial Networks. Lecture Notes in Computer Science, 2020, , 113-122.	1.0	3
63	A Comparison Using Different Speech Parameters in the Automatic Emotion Recognition Using Feature Subset Selection Based on Evolutionary Algorithms. Lecture Notes in Computer Science, 2007, , 423-430.	1.0	3
64	Data Mining for Burr Detection (in the Drilling Process). Lecture Notes in Computer Science, 2009, , 1264-1273.	1.0	3
65	Bayesian Network for quality control in the drilling process. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 264-269.	0.4	2
66	Emotional Poetry Generation. Lecture Notes in Computer Science, 2017, , 332-342.	1.0	2
67	A hierarchical architecture for recognising intentionality in mental tasks on a brain-computer interface. PLoS ONE, 2019, 14, e0218181.	1.1	2
68	Modeling and control of an overactuated aerial vehicle with four tiltable quadrotors attached by means of passive universal joints. , 2020, , .		2
69	Enhancing VTOL Multirotor Performance With a Passive Rotor Tilting Mechanism. IEEE Access, 2021, 9, 64368-64380.	2.6	2
70	Towards Smart Data Selection From Time Series Using Statistical Methods. IEEE Access, 2021, 9, 44390-44401.	2.6	2
71	Automatic Categorization of Answers by Applying Supervised Classification Algorithms to the Analysis of Student Responses to a Series of Multiple Choice Questions. Advances in Intelligent Systems and Computing, 2020, , 454-463.	0.5	2
72	2D Features-based Detector and Descriptor Selection System for Hierarchical Recognition of Industrial Parts. International Journal of Artificial Intelligence & Applications, 2019, 10, 1-13.	0.3	2

#	ARTICLE	IF	CITATIONS
73	On Applying Supervised Classification Techniques in Medicine. Lecture Notes in Computer Science, 2001, , 14-19.	1.0	2
74	Machine Learning Inspired Approaches to Combine Standard Medical Measures at an Intensive Care Unit?. Lecture Notes in Computer Science, 1999, , 366-371.	1.0	2
75	Markov Text Generator for Basque Poetry. Lecture Notes in Computer Science, 2017, , 228-236.	1.0	1
76	A multi-stage optimization algorithm for standardization of maintenance plans. IFAC-PapersOnLine, 2018, 51, 520-524.	0.5	1
77	Using Common Spatial Patterns to Select Relevant Pixels for Video Activity Recognition. Applied Sciences (Switzerland), 2020, 10, 8075.	1.3	1
78	Measurement Time Reduction by Means of Mathematical Modeling of Enzyme Mediated RedOx Reaction in Food Samples Biosensors. Sensors, 2021, 21, 2990.	2.1	1
79	A Cyber-Physical Data Collection System Integrating Remote Sensing and Wireless Sensor Networks for Coffee Leaf Rust Diagnosis. Sensors, 2021, 21, 5474.	2.1	1
80	A Layered Learning Approach to 3D Multimodal People Detection Using Low-Cost Sensors in a Mobile Robot. Advances in Intelligent and Soft Computing, 2012, , 27-33.	0.2	1
81	On the Use of Matrix Based Representation to Deal with Automatic Composer Recognition. Lecture Notes in Computer Science, 2018, , 531-536.	1.0	1
82	An Open-source Library for Processing of 3D Data from Indoor Scenes. , 2022, , .		1
83	A Practical Approach to FM&sup&gt;2&lt;/sup&gt; Motion Planner. Advanced Materials Research, 0, 403-408, 3305-3314.	0.3	0
84	ILRA: Novelty Detection in Face-Based Intervener Re-Identification. Symmetry, 2019, 11, 1154.	1.1	0
85	ORdensity: user-friendly R package to identify differentially expressed genes. BMC Bioinformatics, 2020, 21, 135.	1.2	0
86	Multiscale network regression for associations between brain connectivity and cognitive and behavioural indices. , 2021, , .		0
87	Towards an Interpretable Spanish Sign Language Recognizer. , 2022, , .		0