Ezequiel Lpez-Rubio

List of Publications by Citations

137 papers	1,008 citations	17 h-index	25 g-index
146 ext. papers	1,220 ext. citations	3.4 avg, IF	5.21 L-index

#	Paper	IF	Citations
137	Restoration of images corrupted by Gaussian and uniform impulsive noise. *Pattern Recognition*, **2010**, 43, 1835-1846	7.7	68
136	Foreground detection in video sequences with probabilistic self-organizing maps. *International Journal of Neural Systems*, **2011**, 21, 225-46	6.2	58
135	Vehicle type detection by ensembles of convolutional neural networks operating on super resolved images. *Integrated Computer-Aided Engineering*, **2018**, 25, 321-333	5.2	48
134	A Histogram Transform for ProbabilityDensity Function Estimation. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2014**, 36, 644-56	13.3	37
133	Assessment of geometric features for individual identification and verification in biometric hand systems. *Expert Systems With Applications*, **2013**, 40, 3580-3594	7.8	37
132	Kernel regression based feature extraction for 3D MR image denoising. *Medical Image Analysis*, **2011**, 15, 498-513	15.4	32
131	A principal components analysis self-organizing map. *Neural Networks*, **2004**, 17, 261-70	9.1	30
130	Probabilistic PCA self-organizing maps. *IEEE Transactions on Neural Networks*, **2009**, 20, 1474-89		29
129	Probabilistic self-organizing maps for continuous data. *IEEE Transactions on Neural Networks*, **2010**, 21, 1543-54		28
128	Stochastic approximation for background modelling. *Computer Vision and Image Understanding*, **2011**, 115, 735-749	4.3	28
127	Features for stochastic approximation based foreground detection. *Computer Vision and Image Understanding*, **2015**, 133, 30-50	4.3	23
126	Content based image retrieval by ensembles of deep learning object classifiers. *Integrated Computer-Aided Engineering*, **2020**, 27, 317-331	5.2	18
125	Foreground Detection by Competitive Learning for Varying Input Distributions. *International Journal of Neural Systems*, **2018**, 28, 1750056	6.2	18
124	Multivariate student-t self-organizing maps. *Neural Networks*, **2009**, 22, 1432-47	9.1	18
123	A self-organizing map to improve vehicle detection in flow monitoring systems. *Soft Computing*, **2015**, 19, 2499-2509	3.5	17
122	Multiobjective optimization of deep neural networks with combinations of Lp-norm cost functions for 3D medical image super-resolution. *Integrated Computer-Aided Engineering*, **2020**, 27, 233-251	5.2	17
121	Smart motion detection sensor based on video processing using self-organizing maps. *Expert Systems With Applications*, **2016**, 64, 476-489	7.8	17

120	Learning Topologies with the Growing Neural Forest. *International Journal of Neural Systems*, **2016**, 26, 1650019	6.2	17
119	Foreground detection for moving cameras with stochastic approximation. *Pattern Recognition Letters*, **2015**, 68, 161-168	4.7	16
118	Dynamic competitive probabilistic principal components analysis. *International Journal of Neural Systems*, **2009**, 19, 91-103	6.2	16
117	The Growing Hierarchical Neural Gas Self-Organizing Neural Network. *IEEE Transactions on Neural Networks and Learning Systems*, **2017**, 28, 2000-2009	10.3	14
116	Superresolution from a Single Noisy Image by the Median Filter Transform. *SIAM Journal on Imaging Sciences*, **2016**, 9, 82-115	1.9	14
115	Bregman divergences for growing hierarchical self-organizing networks. *International Journal of Neural Systems*, **2014**, 24, 1450016	6.2	14
114	Deep learning-based video surveillance system managed by low cost hardware and panoramic cameras. *Integrated Computer-Aided Engineering*, **2020**, 27, 373-387	5.2	13
113	Growing hierarchical probabilistic self-organizing graphs. *IEEE Transactions on Neural Networks*, **2011**, 22, 997-1008		13
112	Soft clustering for nonparametric probability density function estimation. *Pattern Recognition Letters*, **2008**, 29, 2085-2091	4.7	13
111	Principal components analysis competitive learning. *Neural Computation*, **2004**, 16, 2459-81	2.9	13
110	Probabilistic self-organizing maps for qualitative data. *Neural Networks*, **2010**, 23, 1208-25	9.1	12
109	Continuous chemical classification in uncontrolled environments with sliding windows. *Chemometrics and Intelligent Laboratory Systems*, **2016**, 158, 117-129	3.8	11
108	Improving Uncertainty Estimation With Semi-Supervised Deep Learning for COVID-19 Detection Using Chest X-Ray Images. *IEEE Access*, **2021**, 9, 85442-85454	3.5	11
107	Foreground detection by probabilistic modeling of the features discovered by stacked denoising autoencoders in noisy video sequences. *Pattern Recognition Letters*, **2019**, 125, 481-487	4.7	10
106	A Competitive Neural Network for Multiple Object Tracking in Video Sequence Analysis. *Neural Processing Letters*, **2013**, 37, 47-67	2.4	10
105	Local color transformation analysis for sudden illumination change detection. *Image and Vision Computing*, **2015**, 37, 31-47	3.7	9
104	Robust location and spread measures for nonparametric probability density function estimation. *International Journal of Neural Systems*, **2009**, 19, 345-57	6.2	9
103	Background subtraction by probabilistic modeling of patch features learned by deep autoencoders. *Integrated Computer-Aided Engineering*, **2020**, 27, 253-265	5.2	9

102	The Forbidden Region Self-Organizing Map Neural Network. *IEEE Transactions on Neural Networks and Learning Systems*, **2020**, 31, 201-211	10.3	9
101	Adaptive kernel regression and probabilistic self-organizing maps for JPEG image deblocking. *Neurocomputing*, **2013**, 121, 32-39	5.4	8
100	Dynamic topology learning with the probabilistic self-organizing graph. *Neurocomputing*, **2011**, 74, 2633-2648	3.4	8
99	Diabetic Wound Segmentation using Convolutional Neural Networks. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2019**, 2019, 1002-1005	0.9	8
98	Blood Cell Classification Using the Hough Transform and Convolutional Neural Networks. *Advances in Intelligent Systems and Computing*, **2018**, 669-678	0.4	7
97	Improving the quality of self-organizing maps by self-intersection avoidance. *IEEE Transactions on Neural Networks and Learning Systems*, **2013**, 24, 1253-65	10.3	7
96	Invariant pattern identification by self-organising networks. *Pattern Recognition Letters*, **2001**, 22, 983-990	4.7	7
95	Data science and molecular biology: prediction and mechanistic explanation. *Synthese*, **2021**, 198, 3131-3158	1.8	7
94	Computational Functionalism for the Deep Learning Era. *Minds and Machines*, **2018**, 28, 667-688	4.9	7
93	Motion detection with low cost hardware for PTZ cameras. *Integrated Computer-Aided Engineering*, **2018**, 26, 21-36	5.2	7
92	Skin Lesion Classification by Ensembles of Deep Convolutional Networks and Regularly Spaced Shifting. *IEEE Access*, **2021**, 9, 112193-112205	3.5	7
91	Unsupervised learning by cluster quality optimization. *Information Sciences*, **2018**, 436-437, 31-55	7.7	6
90	The effect of noise on foreground detection algorithms. *Artificial Intelligence Review*, **2018**, 49, 407-438	9.7	6
89	Selecting the Color Space for Self-Organizing Map Based Foreground Detection in Video. *Neural Processing Letters*, **2016**, 43, 345-361	2.4	6
88	A fast robust geometric fitting method for parabolic curves. *Pattern Recognition*, **2018**, 84, 301-316	7.7	6
87	Grid topologies for the self-organizing map. *Neural Networks*, **2014**, 56, 35-48	9.1	6
86	Expansive and Competitive Learning for Vector Quantization. *Neural Processing Letters*, **2002**, 15, 261-273	2.4	6
85	Object Tracking in Video Sequences by Unsupervised Learning. *Lecture Notes in Computer Science*, **2009**, 1070-1077	0.9	6

84	Ellipse fitting by spatial averaging of random ensembles. *Pattern Recognition*, **2020**, 106, 107406	7.7	6
83	Improving Uncertainty Estimations for Mammogram Classification using Semi-Supervised Learning **2021**,		6
82	Vehicle Type Detection by Convolutional Neural Networks. *Lecture Notes in Computer Science*, **2017**, 268-278	0.9	5
81	Probability density function estimation with the frequency polygon transform. *Information Sciences*, **2015**, 298, 136-158	7.7	5
80	Robust self-organization with M-estimators. *Neurocomputing*, **2015**, 151, 408-423	5.4	5
79	Automatic Model Selection by Cross-Validation for Probabilistic PCA. *Neural Processing Letters*, **2009**, 30, 113-132	2.4	5
78	Self-Organizing Dynamic Graphs. *Neural Processing Letters*, **2002**, 16, 93-109	2.4	5
77	Foreground object detection for video surveillance by fuzzy logic based estimation of pixel illumination states. *Logic Journal of the IGPL*, **2018**,	1	5
76	Robust Fitting of Ellipsoids by Separating Interior and Exterior Points During Optimization. *Journal of Mathematical Imaging and Vision*, **2017**, 58, 189-210	1.6	4
75	**2014**,		4
74	Image Compression by Vector Quantization with Recurrent Discrete Networks. *Lecture Notes in Computer Science*, **2006**, 595-605	0.9	4
73	Background Modeling for Video Sequences by Stacked Denoising Autoencoders. *Lecture Notes in Computer Science*, **2018**, 341-350	0.9	4
72	Deep learning-based super-resolution of 3D magnetic resonance images by regularly spaced shifting. *Neurocomputing*, **2020**, 398, 314-327	5.4	4
71	Dynamic tree topology learning by self-organization. *Neural Computing and Applications*, **2017**, 28, 911-924	4.6	3
70	Optimization of Convolutional Neural Network Ensemble Classifiers by Genetic Algorithms. *Lecture Notes in Computer Science*, **2019**, 163-173	0.9	3
69	Panoramic background modeling for PTZ cameras with competitive learning neural networks **2017**,		3
68	GA-based feature selection approach in biometric hand systems **2011**,		3
67	Road pollution estimation from vehicle tracking in surveillance videos by deep convolutional neural networks. *Applied Soft Computing Journal*, **2021**, 113, 107950	7.5	3

66	The Big Data razor. *European Journal for Philosophy of Science*, **2020**, 10, 1	1.1	3
65	Anomalous object detection by active search with PTZ cameras. *Expert Systems With Applications*, **2021**, 181, 115150	7.8	3
64	Content Based Image Retrieval by Convolutional Neural Networks. *Lecture Notes in Computer Science*, **2019**, 277-286	0.9	2
63	Background Modeling by Shifted Tilings of Stacked Denoising Autoencoders. *Lecture Notes in Computer Science*, **2019**, 307-316	0.9	2
62	Neural controller for PTZ cameras based on nonpanoramic foreground detection **2017**,		2
61	Panorama construction for PTZ camera surveillance with the neural gas network. *Expert Systems*, **2018**, 35, e12249	2.1	2
60	Extended abstract: A color quantization approach based on the Growing Neural Forest **2016**,		2
59	An adaptive system for compressed video deblocking. *Signal Processing*, **2014**, 103, 415-425	4.4	2
58	Stochastic approximation learning for mixtures of multivariate elliptical distributions. *Neurocomputing*, **2011**, 74, 2972-2984	5.4	2
57	Frame Size Reduction for Foreground Detection in Video Sequences. *Lecture Notes in Computer Science*, **2016**, 3-12	0.9	2
56	Piecewise Polynomial Activation Functions for Feedforward Neural Networks. *Neural Processing Letters*, **2019**, 50, 121-147	2.4	2
55	Classification of Images as Photographs or Paintings by Using Convolutional Neural Networks. *Lecture Notes in Computer Science*, **2021**, 432-442	0.9	2
54	A New Self-Organizing Neural Gas Model based on Bregman Divergences **2018**,		2
53	Principal Components Analysis Competitive Learning. *Lecture Notes in Computer Science*, **2003**, 318-325	0.9	2
52	Throwing light on black boxes: emergence of visual categories from deep learning. *Synthèse*, **2020**, 198, 10021	0.8	1
51	Aggregation of Convolutional Neural Network Estimations of Homographies by Color Transformations of the Inputs. *IEEE Access*, **2020**, 8, 79552-79560	3.5	1
50	Pixel Features for Self-organizing Map Based Detection of Foreground Objects in Dynamic Environments. *Advances in Intelligent Systems and Computing*, **2017**, 247-255	0.4	1
49	New learning rules for the ASSOM network. *Neural Computing and Applications*, **2003**, 12, 109-118	4.8	1

48	Self-organization of Probabilistic PCA Models. *Lecture Notes in Computer Science*, **2007**, 211-218	0.9	1
47	Visualization of Complex Datasets with the Self-Organizing Spanning Tree. *Lecture Notes in Computer Science*, **2015**, 209-217	0.9	1
46	Unsupervised Color Quantization with the Growing Neural Forest. *Lecture Notes in Computer Science*, **2017**, 306-316	0.9	1
45	Motion Detection by Microcontroller for Panning Cameras. *Lecture Notes in Computer Science*, **2017**, 279-288	0.9	1
44	Vehicle Classification in Traffic Environments Using the Growing Neural Gas. *Lecture Notes in Computer Science*, **2017**, 225-234	0.9	1
43	A Growing Neural Gas Approach to Classify Vehicles in Traffic Environments. *International Journal of Computer Vision and Image Processing*, **2017**, 7, 1-12	0.7	1
42	Probabilistic Self-Organizing Graphs. *Lecture Notes in Computer Science*, **2009**, 180-187	0.9	1
41	Foreground detection by ensembles of random polygonal tilings. *Expert Systems With Applications*, **2020**, 161, 113518	7.8	1
40	Super-Resolution of 3D MRI Corrupted by Heavy Noise With the Median Filter Transform **2020**,		1
39	Road Pollution Estimation Using Static Cameras And Neural Networks **2018**,		1
38	Deep learning-based anomalous object detection system powered by microcontroller for PTZ cameras **2018**,		1
37	Super-resolution of 3D Magnetic Resonance Images by Random Shifting and Convolutional Neural Networks **2018**,		1
36	Histopathological image analysis for breast cancer diagnosis by ensembles of convolutional neural networks and genetic algorithms **2021**,		1
35	Improved detection of small objects in road network sequences using CNN and super resolution. *Expert Systems*, **2022**, 39,	2.1	1
34	The effect of downsampling–upsampling strategy on foreground detection algorithms. *Artificial Intelligence Review*, **2020**, 53, 4935-4965	9.7	0
33	Ensemble ellipse fitting by spatial median consensus. *Information Sciences*, **2021**, 579, 310-324	7.7	0
32	Anomalous Trajectory Detection for Automated Traffic Video Surveillance. *Lecture Notes in Computer Science*, **2022**, 173-182	0.9	0
31	Deep Learning Networks with p-norm Loss Layers for Spatial Resolution Enhancement of 3D Medical Images. *Lecture Notes in Computer Science*, **2019**, 287-296	0.9	

30	Online Learning by Stochastic Approximation for Background Modeling **2014**, 8-1-8-23	
29	A four-stage system for blind colour image segmentation. *Integrated Computer-Aided Engineering*, **2003**, 10, 127-137	5.2
28	Intrinsic Dimensionality Maps with the PCASOM. *Lecture Notes in Computer Science*, **2005**, 750-757	0.9
27	Dynamic Topology Networks for Colour Image Compression. *Lecture Notes in Computer Science*, **2001**, 168-175	0.9
26	The Principal Components Analysis Self-Organizing Map. *Lecture Notes in Computer Science*, **2002**, 865-870	0.9
25	Local Selection of Model Parameters in Probability Density Function Estimation. *Lecture Notes in Computer Science*, **2006**, 292-301	0.9
24	Automatic Model Selection for Probabilistic PCA. *Lecture Notes in Computer Science*, **2007**, 127-134	0.9
23	Robust Nonparametric Probability Density Estimation by Soft Clustering. *Lecture Notes in Computer Science*, **2008**, 155-164	0.9
22	Foreground Detection Enhancement Using Pearson Correlation Filtering. *Communications in Computer and Information Science*, **2018**, 417-428	0.3
21	Deep Learning-Based Security System Powered by Low Cost Hardware and Panoramic Cameras. *Lecture Notes in Computer Science*, **2019**, 317-326	0.9
20	Growing Neural Forest-Based Color Quantization Applied to RGB Images. *International Journal of Computer Vision and Image Processing*, **2017**, 7, 13-25	0.7
19	Developing Cooperative Evaluation Methodologies in Higher Education. *Advances in Intelligent Systems and Computing*, **2018**, 706-711	0.4
18	Nonparametric Location Estimation for Probability Density Function Learning. *Lecture Notes in Computer Science*, **2009**, 106-113	0.9
17	Feature Weighting in Competitive Learning for Multiple Object Tracking in Video Sequences. *Lecture Notes in Computer Science*, **2011**, 17-24	0.9
16	Reduction of JPEG Compression Artifacts by Kernel Regression and Probabilistic Self-Organizing Maps. *Lecture Notes in Computer Science*, **2011**, 34-41	0.9
15	Feature Selection of Hand Biometrical Traits Based on Computational Intelligence Techniques. *Studies in Computational Intelligence*, **2012**, 159-180	0.8
14	A Self-organizing Map for Traffic Flow Monitoring. *Lecture Notes in Computer Science*, **2013**, 458-466	0.9
13	Hierarchical Self-Organizing Networks for Multispectral Data Visualization. *Lecture Notes in Computer Science*, **2013**, 449-457	0.9

12	Exploratory Data Analysis and Foreground Detection with the Growing Hierarchical Neural Forest. *Neural Processing Letters*, **2020**, 52, 2537-2563	2.4
11	Performance of Deep Learning and Traditional Techniques in Single Image Super-Resolution of Noisy Images. *Lecture Notes in Computer Science*, **2021**, 623-638	0.9
10	Rician Noise Estimation for 3D Magnetic Resonance Images Based on Benford's Law. *Lecture Notes in Computer Science*, **2021**, 340-349	0.9
9	The Effect of Noise and Brightness on Convolutional Deep Neural Networks. *Lecture Notes in Computer Science*, **2021**, 639-654	0.9
8	Foreground Segmentation Improvement by Image Denoising Preprocessing Applied to Noisy Video Sequences. *Advances in Intelligent Systems and Computing*, **2022**, 388-397	0.4
7	Hierarchical Color Quantization with a Neural Gas Model Based on Bregman Divergences. *Advances in Intelligent Systems and Computing*, **2022**, 327-337	0.4
6	The Impact of Linear Motion Blur on the Object Recognition Efficiency of Deep Convolutional Neural Networks. *Lecture Notes in Computer Science*, **2021**, 611-622	0.9
5	Enhanced Image Segmentation by a Novel Test Time Augmentation and Super-Resolution. *Lecture Notes in Computer Science*, **2022**, 153-162	0.9
4	A Novel Continual Learning Approach for Competitive Neural Networks. *Lecture Notes in Computer Science*, **2022**, 223-232	0.9
3	Encoding Generative Adversarial Networks for Defense Against Image Classification Attacks. *Lecture Notes in Computer Science*, **2022**, 163-172	0.9
2	Analysis of Functional Connectome Pipelines for the Diagnosis of Autism Spectrum Disorders. *Lecture Notes in Computer Science*, **2022**, 213-222	0.9
1	Feature Density as an Uncertainty Estimator Method in the Binary Classification Mammography Images Task for a Supervised Deep Learning Model. *Lecture Notes in Computer Science*, **2022**, 375-388	0.9