Marcos Ortega Hortas

List of Publications by Year
in descending order

150	1,562	361045	395343
150 papers	**1,562** citations	**20** h-index	**33** g-index
159 all docs	**159** docs citations	**159** times ranked	**1248** citing authors

#	Article	IF	Citations
1	Heartbeat classification fusing temporal and morphological information of ECGs via ensemble of classifiers. Biomedical Signal Processing and Control, 2019, 47, 41-48.	3.5	200
2	Retinal Verification Using a Feature Points-Based Biometric Pattern. Eurasip Journal on Advances in Signal Processing, 2009, 2009, .	1.0	67
3	Automatic detection and characterisation of retinal vessel tree bifurcations and crossovers in eye fundus images. Computer Methods and Programs in Biomedicine, 2011, 103, 28-38.	2.6	64
4	Deep Convolutional Approaches for the Analysis of COVID-19 Using Chest X-Ray Images From Portable Devices. IEEE Access, 2020, 8, 195594-195607.	2.6	64
5	Automatic segmentation of the foveal avascular zone in ophthalmological OCT-A images. PLoS ONE, 2019, 14, e0212364.	1.1	53
6	Personal verification based on extraction and characterisation of retinal feature points. Journal of Visual Languages and Computing, 2009, 20, 80-90.	1.8	49
7	Sirius: A web-based system for retinal image analysis. International Journal of Medical Informatics, 2010, 79, 722-732.	1.6	47
8	Multi-stage transfer learning for lung segmentation using portable X-ray devices for patients with COVID-19. Expert Systems With Applications, 2021, 173, 114677.	4.4	44
9	Automatic macular edema identification and characterization using OCT images. Computer Methods and Programs in Biomedicine, 2018, 163, 47-63.	2.6	39
10	Fully automatic deep convolutional approaches for the analysis of COVID-19 using chest X-ray images. Applied Soft Computing Journal, 2022, 115, 108190.	4.1	36
11	Intraretinal fluid identification via enhanced maps using optical coherence tomography images. Biomedical Optics Express, 2018, 9, 4730.	1.5	35
12	Data augmentation approaches using cycle-consistent adversarial networks for improving COVID-19 screening in portable chest X-ray images. Expert Systems With Applications, 2021, 185, 115681.	4.4	32
13	Multimodal registration of retinal images using domain-specific landmarks and vessel enhancement. Procedia Computer Science, 2018, 126, 97-104.	1.2	30
14	Robust segmentation of retinal layers in optical coherence tomography images based on a multistage active contour model. Heliyon, 2019, 5, e01271.	1.4	28
15	Hydra: A web-based system for cardiovascular analysis, diagnosis and treatment. Computer Methods and Programs in Biomedicine, 2017, 139, 61-81.	2.6	27
16	Deep multi-instance heatmap regression for the detection of retinal vessel crossings and bifurcations in eye fundus images. Computer Methods and Programs in Biomedicine, 2020, 186, 105201.	2.6	26
17	A Survey on Artificial Intelligence Techniques for Biomedical Image Analysis in Skeleton-Based Forensic Human Identification. Applied Sciences (Switzerland), 2020, 10, 4703.	1.3	26
18	Enhanced visualization of the retinal vasculature using depth information in OCT. Medical and Biological Engineering and Computing, 2017, 55, 2209-2225.	1.6	25

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19	Joint Diabetic Macular Edema Segmentation and Characterization in OCT Images. Journal of Digital Imaging, 2020, 33, 1335-1351.	1.6	22
20	Automatic cyst detection in OCT retinal images combining region flooding and texture analysis. , 2013, , .		21
21	Self-supervised multimodal reconstruction of retinal images over paired datasets. Expert Systems With Applications, 2020, 161, 113674.	4.4	21
22	End-to-end multi-task learning for simultaneous optic disc and cup segmentation and glaucoma classification in eye fundus images. Applied Soft Computing Journal, 2022, 116, 108347.	4.1	21
23	Retinal vascular tortuosity assessment: inter-intra expert analysis and correlation with computational measurements. BMC Medical Research Methodology, 2018, 18, 144.	1.4	20
24	Multi-Modal Self-Supervised Pre-Training for Joint Optic Disc and Cup Segmentation in Eye Fundus Images. , 2020, , .		19
25	Learning the retinal anatomy from scarce annotated data using self-supervised multimodal reconstruction. Applied Soft Computing Journal, 2020, 91, 106210.	4.1	19
26	Improvements in retinal vessel clustering techniques: towards the automatic computation of the arterio venous ratio. Computing (Vienna/New York), 2010, 90, 197-217.	3.2	18
27	Retinal Image Understanding Emerges from Self-Supervised Multimodal Reconstruction. Lecture Notes in Computer Science, 2018, , 321-328.	1.0	18
28	Unsupervised Trajectory Modelling Using Temporal Information via Minimal Paths. , 2014, , .		17
29	Retinal microaneurysms detection using adversarial pre-training with unlabeled multimodal images. Information Fusion, 2022, 79, 146-161.	11.7	17
30	Deep Feature Analysis in a Transfer Learning-based Approach for the Automatic Identification of Diabetic Macular Edema. , 2019, , .		16
31	Hierarchical framework for robust and fast multiple-target tracking in surveillance scenarios. Expert Systems With Applications, 2013, 40, 1116-1131.	4.4	15
32	Cycle Generative Adversarial Network Approaches to Produce Novel Portable Chest X-Rays Images for Covid-19 Diagnosis. , 2021, , .		15
33	Wivern: a Web-Based System Enabling Computer-Aided Diagnosis and Interdisciplinary Expert Collaboration for Vascular Research. Journal of Medical and Biological Engineering, 2017, 37, 920-935.	1.0	13
34	Intraretinal Fluid Pattern Characterization in Optical Coherence Tomography Images. Sensors, 2020, 20, 2004.	2.1	13
35	Precise Segmentation of the Optic Disc in Retinal Fundus Images. Lecture Notes in Computer Science, 2012, , 584-591.	1.0	12
36	Automatic Characterization of the Serous Retinal Detachment Associated with the Subretinal Fluid Presence in Optical Coherence Tomography Images. Procedia Computer Science, 2018, 126, 244-253.	1.2	12

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37	Automatic Segmentation and Intuitive Visualisation of the Epiretinal Membrane in 3D OCT Images Using Deep Convolutional Approaches. IEEE Access, 2021, 9, 75993-76004.	2.6	12
38	Automatic identification and characterization of the epiretinal membrane in OCT images. Biomedical Optics Express, 2019, 10, 4018.	1.5	12
39	Pixel parallel vessel tree extraction for a personal authentication system. , 2008, , .		11
40	Feature definition, analysis and selection for cystoid region characterization in Optical Coherence Tomography. Procedia Computer Science, 2017, 112, 1369-1377.	1.2	11
41	Diabetic Macular Edema Characterization and Visualization Using Optical Coherence Tomography Images. Applied Sciences (Switzerland), 2020, 10, 7718.	1.3	11
42	Automatic Segmentation of Diffuse Retinal Thickening Edemas Using Optical Coherence Tomography Images. Procedia Computer Science, 2018, 126, 472-481.	1.2	10
43	A Novel Automatic Method to Estimate Visual Acuity and Analyze the Retinal Vasculature in Retinal Vein Occlusion Using Swept Source Optical Coherence Tomography Angiography. Journal of Clinical Medicine, 2019, 8, 1515.	1.0	10
44	Automatic Identification and Intuitive Map Representation of the Epiretinal Membrane Presence in 3D OCT Volumes. Sensors, 2019, 19, 5269.	2.1	10
45	Cystoid Fluid Color Map Generation in Optical Coherence Tomography Images Using a Densely Connected Convolutional Neural Network. , 2019, , .		10
46	End-to-end multi-task learning approaches for the joint epiretinal membrane segmentation and screening in OCT images. Computerized Medical Imaging and Graphics, 2022, 98, 102068.	3.5	10
47	Design and implementation of an affect-responsive interactive photo frame. Journal on Multimodal User Interfaces, 2011, 4, 81-95.	2.0	8
48	3D Retinal Vessel Tree Segmentation and Reconstruction with OCT Images. Lecture Notes in Computer Science, 2016, , 716-726.	1.0	8
49	Computational assessment of the retinal vascular tortuosity integrating domain-related information. Scientific Reports, 2019, 9, 19940.	1.6	8
50	Automatic Identification of Intraretinal Cystoid Regions in Optical Coherence Tomography. Lecture Notes in Computer Science, 2017, , 305-315.	1.0	8
51	On the use of a minimal path approach for target trajectory analysis. Pattern Recognition, 2013, 46, 2015-2027.	5.1	7
52	Multiple human tracking system for unpredictable trajectories. Machine Vision and Applications, 2014, 25, 511-527.	1.7	7
53	Self-Supervised Deep Learning for Retinal Vessel Segmentation Using Automatically Generated Labels from Multimodal Data. , 2019, , .		7
54	Self-supervised multimodal reconstruction pre-training for retinal computer-aided diagnosis. Expert Systems With Applications, 2021, 185, 115598.	4.4	7

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55	Multimodal image encoding pre-training for diabetic retinopathy grading. Computers in Biology and Medicine, 2022, 143, 105302.	3.9	7
56	Robust multimodal registration of fluorescein angiography and optical coherence tomography angiography images using evolutionary algorithms. Computers in Biology and Medicine, 2021, 134, 104529.	3.9	6
57	Topological active volumes: A topology-adaptive deformable model for volume segmentation. Pattern Recognition, 2010, 43, 255-266.	5.1	5
58	Automatic processing of audiometry sequences for objective screening of hearing loss. Expert Systems With Applications, 2012, 39, 12683-12696.	4.4	5
59	A web-based framework for anatomical assessment of the retina using OCT. Biosystems Engineering, 2015, 138, 44-58.	1.9	5
60	Automatic wide field registration and mosaicking of OCTA images using vascularity information. Procedia Computer Science, 2019, 159, 505-513.	1.2	5
61	Deep Multimodal Reconstruction of Retinal Images Using Paired or Unpaired Data. , 2019, , .		5
62	Automatic Detection of Blood Vessels in Retinal OCT Images. Lecture Notes in Computer Science, 2017, , 3-10.	1.0	5
63	Automatic Drusen Detection from Digital Retinal Images: AMD Prevention. Lecture Notes in Computer Science, 2009, , 187-194.	1.0	5
64	Algorithm for registration of full Scanning Laser Ophthalmoscope video sequences. Computer Methods and Programs in Biomedicine, 2011, 102, 1-16.	2.6	4
65	Optical Coherence Tomography Denoising by Means of a Fourier Butterworth Filter-Based Approach. Lecture Notes in Computer Science, 2017, , 422-432.	1.0	4
66	Automatic Identification and Representation of the Cornea–Contact Lens Relationship Using AS-OCT Images. Sensors, 2019, 19, 5087.	2.1	4
67	Modeling, Localization, and Segmentation of the Foveal Avascular Zone on Retinal OCT-Angiography Images. IEEE Access, 2020, 8, 152223-152238.	2.6	4
68	Feature Definition and Selection for Epiretinal Membrane Characterization in Optical Coherence Tomography Images. Lecture Notes in Computer Science, 2017, , 456-466.	1.0	4
69	Contextual and Skin Color Region Information for Face and Arms Location. Lecture Notes in Computer Science, 2012, , 616-623.	1.0	4
70	Does imbalance in chest X-ray datasets produce biased deep learning approaches for COVID-19 screening?. BMC Medical Research Methodology, 2022, 22, 125.	1.4	4
71	Measuring changes in face appearance through aging. , 2009, , .		3
72	Automatic Robust Segmentation of Retinal Layers in OCT Images with Refinement Stages. Lecture Notes in Computer Science, 2014, , 337-345.	1.0	3

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73	A Wavefront Marching Method for Solving the Eikonal Equation on Cartesian Grids. , 2015, , .		3
74	A Texture-Based Method for Choroid Segmentation in Retinal EDI-OCT Images. Lecture Notes in Computer Science, 2015, , 487-493.	1.0	3
75	Vessel Tree Extraction and Depth Estimation with OCT Images. Lecture Notes in Computer Science, 2016, , 23-33.	1.0	3
76	A Methodology for the Analysis of Spontaneous Reactions in Automated Hearing Assessment. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 376-387.	3.9	3
77	Automatic extraction of vascularity measurements using OCT-A images. Procedia Computer Science, 2018, 126, 273-281.	1.2	3
78	Multi-expert analysis and validation of objective vascular tortuosity measurements. Procedia Computer Science, 2018, 126, 482-489.	1.2	3
79	Detection of reactions to sound via gaze and global eye motion analysis using camera streaming. Machine Vision and Applications, 2018, 29, 1069-1082.	1.7	3
80	Feature definition and comprehensive analysis on the robust identification of intraretinal cystoid regions using optical coherence tomography images. Pattern Analysis and Applications, 2022, 25, 1-15.	3.1	3
81	On the Quantitative Estimation of Short-Term Aging in Human Faces. Lecture Notes in Computer Science, 2009, , 575-584.	1.0	3
82	Fully-Automatic 3D Intuitive Visualization of Age-Related Macular Degeneration Fluid Accumulations in OCT Cubes. Journal of Digital Imaging, 2022, 35, 1271-1282.	1.6	3
83	Automatic Analysis of the Patient's Conscious Responses to the Emission of Auditory Stimuli during the Performance of an Audiometry. , 2011, , .		2
84	Automatic evaluation of eye gestural reactions to sound in video sequences. Engineering Applications of Artificial Intelligence, 2019, 85, 164-174.	4.3	2
85	Automatic Visual Acuity Estimation by Means of Computational Vascularity Biomarkers Using Oct Angiographies. Sensors, 2019, 19, 4732.	2.1	2
86	Automated Segmentation of the Central Serous Chorioretinopathy fluid regions using Optical Coherence Tomography Scans. , 2021, , .		2
87	Vascular Landmark Detection in Retinal Images. Lecture Notes in Computer Science, 2009, , 211-217.	1.0	2
88	Solving Multiple-Target Tracking Using Adaptive Filters. Lecture Notes in Computer Science, 2011, , 416-425.	1.0	2
89	Path Analysis in Multiple-Target Video Sequences. Lecture Notes in Computer Science, 2011, , 50-59.	1.0	2
90	Detection and Characterization of the Sclera - Evaluation of Eye Gestural Reactions to Auditory Stimuli. , 2015, , .		2

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91	Artery/vein Classification of Blood Vessel Tree in Retinal Imaging. , 2017, , .		2
92	Portable Chest X-ray Synthetic Image Generation for the COVID-19 Screening. Engineering Proceedings, 2021, 7, 6.	0.4	2
93	Characterisation of Retinal Feature Points Applied to a Biometric System. Lecture Notes in Computer Science, 2009, , 355-363.	1.0	2
94	Automatic Identification of Macular Edema in Optical Coherence Tomography Images. , 2018, , .		2
95	Similarity Metrics Analysis for Feature Point Based Retinal Authentication. Lecture Notes in Computer Science, 2008, , 1023-1032.	1.0	2
96	Texture Description in Local Scale Using Texton Histograms with Universal Dictionary. , 2009, , .		1
97	Texture description in local scale using texton histograms with quadrature filter universal dictionaries. IET Computer Vision, 2011, 5, 211.	1.3	1
98	Automatic vessel detection by means of brightness profile characterization in OCT images. Procedia Computer Science, 2017, 112, 980-988.	1.2	1
99	Retinal Vasculature Identification and Characterization Using OCT Imaging. , 2018, , .		1
100	Paired and Unpaired Deep Generative Models on Multimodal Retinal Image Reconstruction. Proceedings (mdpi), 2019, 21, 45.	0.2	1
101	Retinal vascular analysis in a fully automated method for the segmentation of DRT edemas using OCT images. Procedia Computer Science, 2019, 159, 600-609.	1.2	1
102	Automatic Identification of Diabetic Macular Edema Using a Transfer Learning-Based Approach. Proceedings (mdpi), 2019, 21, .	0.2	1
103	Automatic Retinal Vascularity Identification and Artery/Vein Classification Using Near-Infrared Reflectance Retinographies. Communications in Computer and Information Science, 2019, , 262-278.	0.4	1
104	Artery/Vein Vessel Tree Identification in Near-Infrared Reflectance Retinographies. Journal of Digital Imaging, 2019, 32, 947-962.	1.6	1
105	Analysis of Separability of COVID-19 and Pneumonia in Chest X-ray Images by Means of Convolutional Neural Networks. Proceedings (mdpi), 2020, 54, 31.	0.2	1
106	Fully automated identification and clinical classification of macular edema using optical coherence tomography images. , 2020, , 45-67.		1
107	Comparative and Behavioural Analysis of a Diffuse Paradigm for the Evaluation of Diabetic Macular Edema in OCT images. , 2021, , .		1
108	Context encoder self-supervised approaches for eye fundus analysis. , 2021, , .		1

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109	Interactive Three-Dimensional Visualization System of the Vascular Structure in OCT Retinal Images. Lecture Notes in Computer Science, 2018, , 306-313.	1.0	1
110	Comparison of Pixel and Subpixel Retinal Vessel Tree Segmentation Using a Deformable Contour Model. Lecture Notes in Computer Science, 2008, , 683-690.	1.0	1
111	Trajectory Similarity Measures Using Minimal Paths. Lecture Notes in Computer Science, 2013, , 400-409.	1.0	1
112	Computer Aided Hearing Assessment: Detection of Eye Gesture Reactions as a Response to the Sound. Lecture Notes in Computer Science, 2014, , 39-47.	1.0	1
113	Automatic Identification of Diabetic Macular Edema Biomarkers Using Optical Coherence Tomography Scans. Lecture Notes in Computer Science, 2020, , 247-255.	1.0	1
114	Pulmonary-Restricted COVID-19 Informative Visual Screening Using Chest X-ray Images fromÂPortable Devices. Lecture Notes in Computer Science, 2022, , 65-76.	1.0	1
115	High/Low Quality Style Transfer for Mutual Conversion of OCT Images Using Contrastive Unpaired Translation Generative Adversarial Networks. Lecture Notes in Computer Science, 2022, , 210-220.	1.0	1
116	Measuring response times to auditory stimuli during an audiometry. , 2011, , .		0
117	Learning Retinal Patterns from Multimodal Images. Proceedings (mdpi), 2018, 2, .	0.2	0
118	Hydra, a Computer-Based Platform for Aiding Clinicians in Cardiovascular Analysis and Diagnosis. Journal of Visualized Experiments, 2018, , .	0.2	0
119	Automatic Characterization of Epiretinal Membrane in OCT Images with Supervised Training. Proceedings (mdpi), 2018, 2, 1161.	0.2	0
120	Automatic System for the Identification and Visualization of the Retinal Vessel Tree Using OCT Imaging. Proceedings (mdpi), 2018, 2, .	0.2	0
121	Automatic Segmentation and Measurement of Vascular Biomarkers in OCT-A Images. Proceedings (mdpi), 2018, 2, .	0.2	0
122	Fluid Region Analysis and Identification via Optical Coherence Tomography Image Samples. Proceedings (mdpi), 2018, 2, 1180.	0.2	0
123	Automatic Identification and Segmentation of Diffuse Retinal Thickening Macular Edemas Using OCT Imaging. Proceedings (mdpi), 2018, 2, 1194.	0.2	0
124	Intraretinal Fluid Detection by Means of a Densely Connected Convolutional Neural Network Using Optical Coherence Tomography Images. Proceedings (mdpi), 2019, 21, .	0.2	0
125	Automatic Tool for the Detection, Characterization and Intuitive Visualization of Macular Edema Regions in OCT Images. Proceedings (mdpi), 2019, 21, .	0.2	0
126	Fully Automatic Method for the Visual Acuity Estimation Using OCT Angiographies. Proceedings (mdpi), 2020, 54, 57.	0.2	0

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127	Data Extraction in Insurance Photo-Inspections Using Computer Vision. Proceedings (mdpi), 2020, 54, .	0.2	0
128	Joint Optic Disc and Cup Segmentation Using Self-Supervised Multimodal Reconstruction Pre-Training. Proceedings (mdpi), 2020, 54, .	0.2	0
129	Fully Automatic Retinal Vascular Tortuosity Assessment Integrating Domain-Related Information. Proceedings (mdpi), 2020, 54, .	0.2	0
130	Study on Relevant Features in COVID-19 PCR Tests. Proceedings (mdpi), 2020, 54, .	0.2	0
131	Intraretinal fluid map generation in optical coherence tomography images. , 2020, , 19-43.		0
132	Multimodal reconstruction of retinal images over unpaired datasets using cyclical generative adversarial networks. , 2021, , 347-376.		0
133	Automatic Segmentation and Estimation of Ischemic Regions in Oct Angiography Scans. , 2021, , .		0
134	Computational Radiological Screening of Patients with COVID-19 Using Chest X-ray Images from Portable Devices. Engineering Proceedings, 2021, 7, 1.	0.4	0
135	Automatic Segmentation and Visualisation of the Epirretinal Membrane in OCT Scans Using Densely Connected Convolutional Networks. Engineering Proceedings, 2021, 7, .	0.4	0
136	COVID-19 Lung Radiography Segmentation by Means of Multiphase Transfer Learning. Engineering Proceedings, 2021, 7, .	0.4	0
137	Significant Perceptual Regions by Active-Nets. Lecture Notes in Computer Science, 2004, , 795-802.	1.0	0
138	Fully Automatic Methodology for Human Action Recognition Incorporating Dynamic Information. Lecture Notes in Computer Science, 2011, , 173-180.	1.0	0
139	Influence of the Interest Operators in the Detection of Spontaneous Reactions to the Sound. Lecture Notes in Computer Science, 2015, , 346-361.	1.0	0
140	â€œWhite Coatâ€•Effect Study as a Subclinical Target Organ Damage by Means of a Web Platform. Smart Innovation, Systems and Technologies, 2016, , 279-287.	0.5	0
141	BRINGING EXPERIENTIAL LEARNING WITH HTML5 AND MATLAB GUIDE ENVIRONMENT: VIRTUAL APPLICATIONS FOR EPO, ESO AND BACCALAUREATE. EDULEARN Proceedings, 2016, , .	0.0	0
142	A VIRTUAL BENCH TO EXPLAIN GEOMETRIC OPTICS USING MATLAB GUIDE ENVIRONMENT. , 2016, , .		0
143	Impact of the Circular Region of Interest on the Performance of Multimodal Reconstruction of Retinal Images. Lecture Notes in Computer Science, 2020, , 222-230.	1.0	0
144	Automatic ECG Screening as a Supporting Tool on a Telemedicine Framework. Lecture Notes in Computer Science, 2020, , 289-296.	1.0	0

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145	Intuitive and Coherent Intraretinal Cystoid Map Representation in Optical Coherence Tomography Images. Lecture Notes in Computer Science, 2020, , 270-278.	1.0	0
146	Unsupervised Anomaly Map for Image-Based Screening. Lecture Notes in Computer Science, 2020, , 239-246.	1.0	0
147	Certainty Measure of Pairwise Line Segment Perceptual Relations Using Fuzzy Logic. , 2007, , 477-486.		0
148	Measuring changes in face appearance through aging. , 2009, , .		0
149	Fully Automatic Epiretinal Membrane Segmentation in OCT Scans Using Convolutional Networks. Advances in Medical Diagnosis, Treatment, and Care, 2022, , 88-121.	0.1	0
150	Generation of Novel Synthetic Portable Chest X-Ray Images for Automatic COVID-19 Screening. Advances in Medical Diagnosis, Treatment, and Care, 2022, , 248-281.	0.1	0