

# Joo Paulo Cunha

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

107  
papers

1,553  
citations

22  
h-index

37  
g-index

123  
ext. papers

1,979  
ext. citations

2.9  
avg, IF

5.3  
L-index

#	Paper	IF	Citations
107	Implementing a Quantified Occupational Health Sensing Platform in the Aviation Sector: an Exploratory Study in Routine Air Traffic Control Work Shifts. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2021, 2021, 7162-7165</i>	0.9	0
106	Does the type of seizure influence heart rate variability changes?. <i>Epilepsy and Behavior, 2021, 126, 108453</i>	3.5	0
105	Heart rate variability in patients with refractory epilepsy: The influence of generalized convulsive seizures. <i>Epilepsy Research, 2021, 178, 106796</i>	3	1
104	A systematic review on the use of immersive virtual reality to train professionals. <i>Multimedia Tools and Applications, 2021, 80, 13195-13214</i>	2.5	4
103	Supporting the Assessment of Hereditary Transthyretin Amyloidosis Patients Based On 3-D Gait Analysis and Machine Learning. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1350-1362</i>	4.8	3
102	A Deep Learning Architecture for Epileptic Seizure Classification Based on Object and Action Recognition <b>2020,</b>		5
101	iLoF: An intelligent Lab on Fiber Approach for Human Cancer Single-Cell Type Identification. <i>Scientific Reports, 2020, 10, 3171</i>	4.9	3
100	iHandU: A Novel Quantitative Wrist Rigidity Evaluation Device for Deep Brain Stimulation Surgery. <i>Sensors, 2020, 20,</i>	3.8	4
99	Impact of Different Stimuli on User Stress During a Virtual Firefighting Training Exercise <b>2020,</b>		3
98	Multimodal Approach for Epileptic Seizure Detection in Epilepsy Monitoring Units. <i>IFMBE Proceedings, 2020, 1093-1104</i>	0.2	
97	Virtual reality in training: an experimental study with firefighters. <i>Multimedia Tools and Applications, 2020, 79, 6227-6245</i>	2.5	15
96	SnapKi-An Inertial Easy-to-Adapt Wearable Textile Device for Movement Quantification of Neurological Patients. <i>Sensors, 2020, 20,</i>	3.8	1
95	Clinical 3-D Gait Assessment of Patients With Polyneuropathy Associated With Hereditary Transthyretin Amyloidosis. <i>Frontiers in Neurology, 2020, 11, 605282</i>	4.1	2
94	A Textile Embedded Wearable Device for Movement Disorders Quantification. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2020, 2020, 4559-4562</i>	0.9	2
93	Subject Identification Based on Gait Using a RGB-D Camera. <i>Advances in Intelligent Systems and Computing, 2020, 76-85</i>	0.4	
92	Automated and objective measures of gait dynamics in camptocormia Parkinson's Disease subthalamic deep brain stimulation. <i>Clinical Neurology and Neurosurgery, 2019, 186, 105537</i>	2	
91	A wearable approach for intraoperative physiological stress monitoring of multiple cooperative surgeons. <i>International Journal of Medical Informatics, 2019, 129, 60-68</i>	5.3	10

90	Optical fiber-based sensing method for nanoparticle detection through supervised back-scattering analysis: a potential contributor for biomedicine. <i>International Journal of Nanomedicine</i> , <b>2019</b> , 14, 2349-2369	7.3	3
89	Epileptic seizure classification using the NeuroMov database <b>2019</b> ,		3
88	Full-body motion assessment: Concurrent validation of two body tracking depth sensors versus a gold standard system during gait. <i>Journal of Biomechanics</i> , <b>2019</b> , 87, 189-196	2.9	21
87	Skin temperature of the foot: comparing transthyretin Familial Amyloid Polyneuropathy and Diabetic Foot patients. <i>Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization</i> , <b>2019</b> , 7, 504-511	0.9	1
86	Validation of a Single RGB-D Camera for Gait Assessment of Polyneuropathy Patients. <i>Sensors</i> , <b>2019</b> , 19,	3.8	12
85	TTR-FAP Progression Evaluation Based on Gait Analysis Using a Single RGB-D Camera. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2019</b> , 2019, 5494-5497	0.9	3
84	Optical fiber tips for biological applications: From light confinement, biosensing to bioparticles manipulation. <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>2018</b> , 1862, 1209-1246	4	25
83	Quantification of gait parameters with inertial sensors and inverse kinematics. <i>Journal of Biomechanics</i> , <b>2018</b> , 72, 207-214	2.9	12
82	Skin Temperature of the Foot: A Comparative Study Between Familial Amyloid Polyneuropathy and Diabetic Foot Patients. <i>Lecture Notes in Computational Vision and Biomechanics</i> , <b>2018</b> , 1048-1052	0.3	
81	Wearable Health Devices-Vital Sign Monitoring, Systems and Technologies. <i>Sensors</i> , <b>2018</b> , 18,	3.8	309
80	Single Particle Differentiation through 2D Optical Fiber Trapping and Back-Scattered Signal Statistical Analysis: An Exploratory Approach. <i>Sensors</i> , <b>2018</b> , 18,	3.8	9
79	A regression approach based on separability maximization for modeling a continuous-valued stress index from electrocardiogram data. <i>Biomedical Signal Processing and Control</i> , <b>2018</b> , 46, 33-45	4.9	8
78	Quantitative and qualitative analysis of ictal vocalization in focal epilepsy syndromes. <i>Seizure: the Journal of the British Epilepsy Association</i> , <b>2018</b> , 60, 178-183	3.2	4
77	Fabrication of Multimode-Single Mode Polymer Fiber Tweezers for Single Cell Trapping and Identification with Improved Performance. <i>Sensors</i> , <b>2018</b> , 18,	3.8	7
76	System for automatic gait analysis based on a single RGB-D camera. <i>PLoS ONE</i> , <b>2018</b> , 13, e0201728	3.7	19
75	Wearable Biomonitoring Platform for the Assessment of Stress and its Impact on Cognitive Performance of Firefighters: An Experimental Study. <i>Clinical Practice and Epidemiology in Mental Health</i> , <b>2018</b> , 14, 250-262	3.2	16
74	A Wearable System for the Stress Monitoring of Air Traffic Controllers During An Air Traffic Control Refresher Training and the Trier Social Stress Test: A Comparative Study. <i>Open Bioinformatics Journal</i> , <b>2018</b> , 11, 106-116	0.8	2
73	Ambulatory Assessment of Psychophysiological Stress among Police Officers: a Proof-of-Concept Study. <i>Occupational Health Science</i> , <b>2018</b> , 2, 215-231	1.5	3

72	Stress among on-duty firefighters: an ambulatory assessment study. <i>PeerJ</i> , <b>2018</b> , 6, e5967	3.1	8
71	On the Fly Reporting of Human Body Movement based on Kinect v2. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2018</b> , 2018, 1546-1549	0.9	
70	Cognitive Impact and Psychophysiological Effects of Stress Using a Biomonitoring Platform. <i>International Journal of Environmental Research and Public Health</i> , <b>2018</b> , 15,	4.6	20
69	Psychophysiological Stress Assessment Among On-Duty Firefighters. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2018</b> , 2018, 4335-4338	0.9	4
68	Pubovisceralis Muscle Fiber Architecture Determination: Comparison Between Biomechanical Modeling and Diffusion Tensor Imaging. <i>Annals of Biomedical Engineering</i> , <b>2017</b> , 45, 1255-1265	4.7	9
67	Validation of a low intrusiveness heart rate sensor for stress assessment. <i>Biomedical Physics and Engineering Express</i> , <b>2017</b> , 3, 017004	1.5	1
66	VitalLogger: An adaptable wearable physiology and body-area ambiance data logger for mobile applications <b>2017</b> ,		3
65	Automated analysis of seizure semiology and brain electrical activity in presurgery evaluation of epilepsy: A focused survey. <i>Epilepsia</i> , <b>2017</b> , 58, 1817-1831	6.4	22
64	Automated volumetry of hippocampus is useful to confirm unilateral mesial temporal sclerosis in patients with radiologically positive findings. <i>Neuroradiology Journal</i> , <b>2017</b> , 30, 318-323	2	7
63	Heart rate variability metrics for fine-grained stress level assessment. <i>Computer Methods and Programs in Biomedicine</i> , <b>2017</b> , 148, 71-80	6.9	50
62	A diffusion-based connectivity map of the GPi for optimised stereotactic targeting in DBS. <i>NeuroImage</i> , <b>2017</b> , 144, 83-91	7.9	27
61	The first Transthyretin Familial Amyloid Polyneuropathy gait quantification study - preliminary results. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2017</b> , 2017, 1368-1371	0.9	3
60	Permutations of functional magnetic resonance imaging classification may not be normally distributed. <i>Statistical Methods in Medical Research</i> , <b>2017</b> , 26, 2567-2585	2.3	1
59	2D Computational Modeling of Optical Trapping Effects on Malaria-infected Red Blood Cells <b>2017</b> ,		2
58	Beat-ID: Towards a computationally low-cost single heartbeat biometric identity check system based on electrocardiogram wave morphology. <i>PLoS ONE</i> , <b>2017</b> , 12, e0180942	3.7	22
57	Changes in ST, QT and RR ECG intervals during acute stress in firefighters: a pilot study. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2016</b> , 2016, 3378-3381	0.9	6
56	Automated volumetry for unilateral hippocampal sclerosis detection in patients with temporal lobe epilepsy. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2016</b> , 2016, 6339-6342	0.9	1
55	A novel portable, low-cost kinect-based system for motion analysis in neurological diseases. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2016</b> , 2016, 2339-2342	0.9	14

54	A connectivity-based approach to the pathophysiology of hemiballism. <i>Basal Ganglia</i> , <b>2016</b> , 6, 107-113		
53	NeuroKinect: A Novel Low-Cost 3Dvideo-EEG System for Epileptic Seizure Motion Quantification. <i>PLoS ONE</i> , <b>2016</b> , 11, e0145669	3.7	31
52	An adaptive model approach for quantitative wrist rigidity evaluation during deep brain stimulation surgery. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2016</b> , 2016, 5809-5812	0.9	5
51	Movement Quantification in Neurological Diseases: Methods and Applications. <i>IEEE Reviews in Biomedical Engineering</i> , <b>2016</b> , 9, 15-31	6.4	20
50	. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2015</b> , 16, 3294-3303	6.1	33
49	Neurotransmitter vesicle movement dynamics in living neurons. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 6265-8	0.9	
48	Wrist rigidity assessment during Deep Brain Stimulation surgery. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 3423-6	0.9	6
47	Kinect v2 based system for Parkinson's disease assessment. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 1279-82	0.9	23
46	A 3D multimodal approach to precisely locate DBS electrodes in the basal ganglia brain region <b>2015</b>		3
45	SenseMyHeart: A cloud service and API for wearable heart monitors. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 4986-9	0.9	2
44	Telemedicine multimedia system to support neurodegenerative diseases participatory management. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 4982-5	0.9	1
43	<b>2014</b> ,		1
42	Monkeys time their pauses of movement and not their movement-kinematics during a synchronization-continuation rhythmic task. <i>Journal of Neurophysiology</i> , <b>2014</b> , 111, 2138-49	3.2	23
41	Connectivity patterns of pallidal DBS electrodes in focal dystonia: a diffusion tensor tractography study. <i>NeuroImage</i> , <b>2014</b> , 84, 435-42	7.9	39
40	Parkinson's disease assessment based on gait analysis using an innovative RGB-D camera system. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2014</b> , 2014, 3126-9	0.9	23
39	ABrIL - Advanced Brain Imaging Lab : a cloud based computation environment for cooperative neuroimaging projects. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2014</b> , 2014, 534-7	0.9	3
38	3D Multimodal Visualization of Subdural Electrodes with Cerebellum Removal to Guide Epilepsy Resective Surgery Procedures. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 167-174	0.9	
37	ECG delineation and morphological analysis for firefighters tasks differentiation <b>2013</b> ,		3

36	Developmental dissociation of visual dorsal stream parvo and magnocellular representations and the functional impact of negative retinotopic BOLD responses. <i>Brain and Cognition</i> , <b>2013</b> , 83, 72-9	2.7	3
35	Upper limb automatisms differ quantitatively in temporal and frontal lobe epilepsies. <i>Epilepsy and Behavior</i> , <b>2013</b> , 27, 404-8	3.2	8
34	Medical Information Extraction in European Portuguese <b>2013</b> , 607-626		
33	On using permutation tests to estimate the classification significance of functional magnetic resonance imaging data. <i>Neurocomputing</i> , <b>2012</b> , 82, 224-233	5.4	2
32	Movement quantification in epileptic seizures: a feasibility study for a new 3D approach. <i>Medical Engineering and Physics</i> , <b>2012</b> , 34, 938-45	2.4	9
31	Using Permutation Tests to Study How the Dimensionality, the Number of Classes, and the Number of Samples Affect Classification Analysis. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 34-42	0.9	1
30	iVital: A Real Time Monitoring System for First Response Teams. <i>Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering</i> , <b>2012</b> , 396-404	0.2	0
29	Vital Responder □Wearable Sensing Challenges in Uncontrolled Critical Environments. <i>Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering</i> , <b>2012</b> , 45-62	0.2	
28	pHealth and wearable technologies: a permanent challenge. <i>Studies in Health Technology and Informatics</i> , <b>2012</b> , 177, 185-95	0.5	2
27	Towards a movement quantification system capable of automatic evaluation of upper limb motor function after neurological injury. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2011</b> , 2011, 5456-60	0.9	9
26	Quantitative movement analysis differentiates focal seizures characterized by automatisms. <i>Epilepsy and Behavior</i> , <b>2011</b> , 20, 642-7	3.2	19
25	Ictal head turning in frontal and temporal lobe epilepsy. <i>Epilepsia</i> , <b>2011</b> , 52, 1447-51	6.4	13
24	Autonomic correlates of attachment insecurity in a sample of women with eating disorders. <i>Attachment and Human Development</i> , <b>2011</b> , 13, 155-67	2.8	23
23	. <i>IEEE Sensors Journal</i> , <b>2011</b> , 11, 2241-2245	4	24
22	Biometric Authentication with Electroencephalograms: Evaluation of Its Suitability Using Visual Evoked Potentials. <i>Communications in Computer and Information Science</i> , <b>2011</b> , 290-306	0.3	5
21	3D-Video-fMRI: 3D Motion Tracking in a 3T MRI Environment. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 59-67	0.9	1
20	Functional Brain Mapping by Methods of Evolutionary Natural Selection. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 293-299	0.9	
19	Significance of lateralization of upper limb automatisms in temporal lobe epilepsy: a quantitative movement analysis. <i>Epilepsia</i> , <b>2010</b> , 51, 2140-6	6.4	14

18	Automated topographic segmentation and transit time estimation in endoscopic capsule exams. <i>IEEE Transactions on Medical Imaging</i> , <b>2008</b> , 27, 19-27	11.7	57
17	Towards a human-robot interface based on the electrical activity of the brain <b>2008</b> ,		6
16	On-line control of light intensity in a microalgal bioreactor using a novel automatic system. <i>Enzyme and Microbial Technology</i> , <b>2008</b> , 42, 554-559	3.8	13
15	Authentication Architecture for Region-Wide e-Health System with Smartcards and a PKI. <i>Communications in Computer and Information Science</i> , <b>2008</b> , 479-492	0.3	
14	Lateralizing significance of quantitative analysis of head movements before secondary generalization of seizures of patients with temporal lobe epilepsy. <i>Epilepsia</i> , <b>2007</b> , 48, 524-30	6.4	30
13	A novel dry active electrode for EEG recording. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2007</b> , 54, 162-5	5	99
12	Authentication Architecture for eHealth Professionals. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 1583-1600		5
11	MPEG-7 Visual Descriptors Contributions for Automated Feature Extraction in Capsule Endoscopy. <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , <b>2006</b> , 16, 628-637	6.4	123
10	EpiGauss: Spatio-temporal Characterization of Epileptogenic Activity Applied to Hypothalamic Hamartomas. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 680-690	0.9	
9	What does an epileptiform spike look like in MEG? Comparison between coincident EEG and MEG spikes. <i>Journal of Clinical Neurophysiology</i> , <b>2005</b> , 22, 68-73	2.2	28
8	Extracting clinical information from endoscopic capsule exams using MPEG-7 visual descriptors <b>2005</b> ,		9
7	Movement quantification in epileptic seizures: a new approach to video-EEG analysis. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2002</b> , 49, 565-73	5	53
6	On-line determination of biomass in a microalga bioreactor using a novel computerized flow injection analysis system. <i>Biotechnology Progress</i> , <b>2002</b> , 18, 1387-91	2.8	32
5	Interictal spike EEG source analysis in hypothalamic hamartoma epilepsy. <i>Clinical Neurophysiology</i> , <b>2002</b> , 113, 1961-9	4.3	23
4	A new and fast nonlinear method for association analysis of biosignals. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2000</b> , 47, 757-63	5	5
3	Agents Working on the Integration of Heterogeneous Information Sources in Distributed Healthcare Environments. <i>Lecture Notes in Computer Science</i> , <b>2000</b> , 136-145	0.9	1
2	SIGIF: a digital signal interchange format with application in neurophysiology. <i>IEEE Transactions on Biomedical Engineering</i> , <b>1997</b> , 44, 413-8	5	5
1	Scalp EEG recording: interictal/ictal location and spreading of epileptiform events. <i>Acta Neurologica Scandinavica</i> , <b>1994</b> , 152, 17-9	3.8	

