JoÃ£o Paulo Cunha

List of Publications by Year
in descending order

119 papers	2,366 citations	236833 25 h-index	243529 44 g-index
123 all docs	123 docs citations	123 times ranked	3016 citing authors

#	Article	IF	Citations
1	Does the type of seizure influence heart rate variability changes?. Epilepsy and Behavior, 2022, 126, 108453.	0.9	4
2	Gait Characterization and Analysis of Hereditary Amyloidosis Associated with Transthyretin Patients: A Case Series. Journal of Clinical Medicine, 2022, 11, 3967.	1.0	2
3	A systematic review on the use of immersive virtual reality to train professionals. Multimedia Tools and Applications, 2021, 80, 13195-13214.	2.6	14
4	Supporting the Assessment of Hereditary Transthyretin Amyloidosis Patients Based On 3-D Gait Analysis and Machine Learning. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1350-1362.	2.7	7
5	Changes in Heart Rate Variability after Transcranial Direct Current Stimulation in Patients with Refractory Epilepsy. , 2021, , .		0
6	Video-EEG and PerceptTM PC Deep Brain Neurostimulator Fine-Grained Synchronization for Multimodal Neurodata Analysis. , 2021, , .		1
7	DeepEpil: Towards an Epileptologist-Friendly AI Enabled Seizure Classification Cloud System based on Deep Learning Analysis of 3D videos. , 2021, , .		7
8	Heart rate variability in patients with refractory epilepsy: The influence of generalized convulsive seizures. Epilepsy Research, 2021, 178, 106796.	0.8	3
9	Implementing a Quantified Occupational Health Sensing Platform in the Aviation Sector: an Exploratory Study in Routine Air Traffic Control Work Shifts. , 2021, 2021, 7162-7165.		0
10	Subject Identification Based on Gait Using a RGB-D Camera. Advances in Intelligent Systems and Computing, 2020, , 76-85.	0.5	0
11	Virtual reality in training: an experimental study with firefighters. Multimedia Tools and Applications, 2020, 79, 6227-6245.	2.6	36
12	SnapKiâ€"An Inertial Easy-to-Adapt Wearable Textile Device for Movement Quantification of Neurological Patients. Sensors, 2020, 20, 3875.	2.1	3
13	Clinical 3-D Gait Assessment of Patients With Polyneuropathy Associated With Hereditary Transthyretin Amyloidosis. Frontiers in Neurology, 2020, 11, 605282.	1.1	6
14	A Textile Embedded Wearable Device for Movement Disorders Quantification. , 2020, 2020, 4559-4562.		2
15	A Deep Learning Architecture for Epileptic Seizure Classification Based on Object and Action Recognition. , 2020, , .		16
16	iLoF: An intelligent Lab on Fiber Approach for Human Cancer Single-Cell Type Identification. Scientific Reports, 2020, 10, 3171.	1.6	8
17	iHandU: A Novel Quantitative Wrist Rigidity Evaluation Device for Deep Brain Stimulation Surgery. Sensors, 2020, 20, 331.	2.1	8
18	Multimodal Approach for Epileptic Seizure Detection in Epilepsy Monitoring Units. IFMBE Proceedings, 2020, , 1093-1104.	0.2	0

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19	Impact of Different Stimuli on User Stress During a Virtual Firefighting Training Exercise. , 2020, , .		6
20	Skin temperature of the foot: comparing transthyretin Familial Amyloid Polyneuropathy and Diabetic Foot patients. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2019, 7, 504-511.	1.3	2
21	iHandU: Towards the Validation of a Wrist Rigidity Estimation for Intraoperative DBS Electrode Position Optimization. , 2019, , .		1
22	Automated and objective measures of gait dynamics in camptocormia Parkinson's Disease subthalamic deep brain stimulation. Clinical Neurology and Neurosurgery, 2019, 186, 105537.	0.6	1
23	A wearable approach for intraoperative physiological stress monitoring of multiple cooperative surgeons. International Journal of Medical Informatics, 2019, 129, 60-68.	1.6	18
24	<p>Optical fiber-based sensing method for nanoparticle detection through supervised back-scattering analysis: a potential contributor for biomedicine</p>. International Journal of Nanomedicine, 2019, Volume 14, 2349-2369.	3.3	8
25	Epileptic seizure classification using the NeuroMov database. , 2019, , .		8
26	Full-body motion assessment: Concurrent validation of two body tracking depth sensors versus a gold standard system during gait. Journal of Biomechanics, 2019, 87, 189-196.	0.9	40
27	Validation of a Single RGB-D Camera for Gait Assessment of Polyneuropathy Patients. Sensors, 2019, 19, 4929.	2.1	23
28	TTR-FAP Progression Evaluation Based on Gait Analysis Using a Single RGB-D Camera. , 2019, 2019, 5494-5497.		3
29	Optical fiber-based sensing method for nanoparticles detection through back-scattering signal analysis. , 2019, , .		0
30	A novel method for scatterers type enumeration in polydisperse suspensions through fiber trapping and unsupervised scattering analysis. , 2019, , .		0
31	Optical fiber tips for biological applications: From light confinement, biosensing to bioparticles manipulation. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 1209-1246.	1.1	39
32	Quantification of gait parameters with inertial sensors and inverse kinematics. Journal of Biomechanics, 2018, 72, 207-214.	0.9	15
33	Skin Temperature of the Foot: A Comparative Study Between Familial Amyloid Polyneuropathy and Diabetic Foot Patients. Lecture Notes in Computational Vision and Biomechanics, 2018, , 1048-1052.	0.5	0
34	Ambulatory Assessment of Psychophysiological Stress among Police Officers: a Proof-of-Concept Study. Occupational Health Science, 2018, 2, 215-231.	1.0	5
35	Stress among on-duty firefighters: an ambulatory assessment study. PeerJ, 2018, 6, e5967.	0.9	19
36	On the Fly Reporting of Human Body Movement based on Kinect v2. , 2018, 2018, 1546-1549.		1

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37	Cognitive Impact and Psychophysiological Effects of Stress Using a Biomonitoring Platform. International Journal of Environmental Research and Public Health, 2018, 15, 1080.	1.2	29
38	Psychophysiological Stress Assessment Among On-Duty Firefighters. , 2018, 2018, 4335-4338.		9
39	Towards a Single Parameter Sensing for Bacteria Sorting through Optical Fiber Trapping and Back-Scattered Signal Analysis. , 2018, , .		1
40	Wearable Health Devices—Vital Sign Monitoring, Systems and Technologies. Sensors, 2018, 18, 2414.	2.1	562
41	Single Particle Differentiation through 2D Optical Fiber Trapping and Back-Scattered Signal Statistical Analysis: An Exploratory Approach. Sensors, 2018, 18, 710.	2.1	16
42	A regression approach based on separability maximization for modeling a continuous-valued stress index from electrocardiogram data. Biomedical Signal Processing and Control, 2018, 46, 33-45.	3.5	11
43	Quantitative and qualitative analysis of ictal vocalization in focal epilepsy syndromes. Seizure: the Journal of the British Epilepsy Association, 2018, 60, 178-183.	0.9	11
44	Fabrication of Multimode-Single Mode Polymer Fiber Tweezers for Single Cell Trapping and Identification with Improved Performance. Sensors, 2018, 18, 2746.	2.1	11
45	System for automatic gait analysis based on a single RGB-D camera. PLoS ONE, 2018, 13, e0201728.	1.1	34
46	Wearable Biomonitoring Platform for the Assessment of Stress and its Impact on Cognitive Performance of Firefighters: An Experimental Study. Clinical Practice and Epidemiology in Mental Health, 2018, 14, 250-262.	0.6	27
47	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. Open Bioinformatics Journal, 2018, 11, 106-116.	1.0	3
48	Experimental and theoretical evaluation of the trapping performance of polymeric lensed optical fibers: single biological cells versus synthetic structures. , 2018, , .		0
49	Pubovisceralis Muscle Fiber Architecture Determination: Comparison Between Biomechanical Modeling and Diffusion Tensor Imaging. Annals of Biomedical Engineering, 2017, 45, 1255-1265.	1.3	11
50	Validation of a low intrusiveness heart rate sensor for stress assessment. Biomedical Physics and Engineering Express, 2017, 3, 017004.	0.6	1
51	VitalLogger: An adaptable wearable physiology and body-area ambiance data logger for mobile applications. , 2017, , .		3
52	Computational modeling of red blood cells trapping using Optical Fiber Tweezers. , 2017, , .		1
53	Automated analysis of seizure semiology and brain electrical activity in presurgery evaluation of epilepsy: A focused survey. Epilepsia, 2017, 58, 1817-1831.	2.6	39
54	Automated volumetry of hippocampus is useful to confirm unilateral mesial temporal sclerosis in patients with radiologically positive findings. Neuroradiology Journal, 2017, 30, 318-323.	0.6	10

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55	Heart rate variability metrics for fine-grained stress level assessment. Computer Methods and Programs in Biomedicine, 2017, 148, 71-80.	2.6	95
56	A diffusion-based connectivity map of the GPi for optimised stereotactic targeting in DBS. NeuroImage, 2017, 144, 83-91.	2.1	36
57	The first Transthyretin Familial Amyloid Polyneuropathy gait quantification study - preliminary results. , 2017, 2017, 1368-1371.		4
58	Permutations of functional magnetic resonance imaging classification may not be normally distributed. Statistical Methods in Medical Research, 2017, 26, 2567-2585.	0.7	1
59	Beat-to-beat ECG features for time resolution improvements in stress detection. , 2017, , .		1
60	2D Computational Modeling of Optical Trapping Effects on Malaria-infected Red Blood Cells. , 2017, , .		3
61	Beat-ID: Towards a computationally low-cost single heartbeat biometric identity check system based on electrocardiogram wave morphology. PLoS ONE, 2017, 12, e0180942.	1.1	32
62	An adaptive model approach for quantitative wrist rigidity evaluation during deep brain stimulation surgery. , 2016, 2016, 5809-5812.		8
63	Movement Quantification in Neurological Diseases: Methods and Applications. IEEE Reviews in Biomedical Engineering, 2016, 9, 15-31.	13.1	31
64	Changes in ST, QT and RR ECG intervals during acute stress in firefighters: A pilot study. , 2016, 2016, 3378-3381.		11
65	Automated volumetry for unilateral hippocampal sclerosis detection in patients with temporal lobe epilepsy. , 2016, 2016, 6339-6342.		1
66	A novel portable, low-cost kinect-based system for motion analysis in neurological diseases. , 2016, 2016, 2339-2342.		17
67	A connectivity-based approach to the pathophysiology of hemiballism. Basal Ganglia, 2016, 6, 107-113.	0.3	0
68	NeuroKinect: A Novel Low-Cost 3Dvideo-EEG System for Epileptic Seizure Motion Quantification. PLoS ONE, 2016, 11, e0145669.	1.1	46
69	Neurotransmitter vesicle movement dynamics in living neurons. , 2015, 2015, 6265-8.		0
70	Wrist rigidity assessment during Deep Brain Stimulation surgery. , 2015, 2015, 3423-6.		11
71	Kinect v2 based system for Parkinson's disease assessment. , 2015, 2015, 1279-82.		30
72	A 3D multimodal approach to precisely locate DBS electrodes in the basal ganglia brain region. , 2015, , .		6

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73	SenseMyHeart: A cloud service and API for wearable heart monitors. , 2015, 2015, 4986-9.		3
74	Telemedicine multimedia system to support neurodegenerative diseases participatory management. , 2015, 2015, 4982-5.		2
75	A Mobile Sensing Approach to Stress Detection and Memory Activation for Public Bus Drivers. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 3294-3303.	4.7	51
76	Parkinson's disease assessment based on gait analysis using an innovative RGB-D camera system. , 2014, 2014, 3126-9.		30
77	ABrIL — Advanced Brain Imaging lab.: A cloud based computation environment for cooperative neuroimaging projects. , 2014, 2014, 534-7.		6
78	3D Multimodal Visualization of Subdural Electrodes with Cerebellum Removal to Guide Epilepsy Resective Surgery Procedures. Lecture Notes in Computer Science, 2014, , 167-174.	1.0	0
79	Neurondynamics: A method for neurotransmitter vesicle movement characterization in neurons. , 2014, , .		1
80	Monkeys time their pauses of movement and not their movement-kinematics during a synchronization-continuation rhythmic task. Journal of Neurophysiology, 2014, 111, 2138-2149.	0.9	29
81	Connectivity patterns of pallidal DBS electrodes in focal dystonia: A diffusion tensor tractography study. NeuroImage, 2014, 84, 435-442.	2.1	45
82	ECG delineation and morphological analysis for firefighters tasks differentiation. , 2013, , .		3
83	Developmental dissociation of visual dorsal stream parvo and magnocellular representations and the functional impact of negative retinotopic BOLD responses. Brain and Cognition, 2013, 83, 72-79.	0.8	3
84	Upper limb automatisms differ quantitatively in temporal and frontal lobe epilepsies. Epilepsy and Behavior, 2013, 27, 404-408.	0.9	11
85	FIREMAN. , 2013, , .		2
86	MonitorMe: Online video monitoring for first responders using a smartphone. , 2013, , .		0
87	Medical Information Extraction in European Portuguese. , 2013, , 607-626.		2
88	Movement quantification in epileptic seizures: A feasibility study for a new 3D approach. Medical Engineering and Physics, 2012, 34, 938-945.	0.8	11
89	On using permutation tests to estimate the classification significance of functional magnetic resonance imaging data. Neurocomputing, 2012, 82, 224-233.	3.5	5
90	Using Permutation Tests to Study How the Dimensionality, the Number of Classes, and the Number of Samples Affect Classification Analysis. Lecture Notes in Computer Science, 2012, , 34-42.	1.0	1

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91	iVital: A Real Time Monitoring System for First Response Teams. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 396-404.	0.2	2
92	Vital Responder â€" Wearable Sensing Challenges in Uncontrolled Critical Environments. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 45-62.	0.2	0
93	pHealth and wearable technologies: a permanent challenge. Studies in Health Technology and Informatics, 2012, 177, 185-95.	0.2	2
94	Autonomic correlates of attachment insecurity in a sample of women with eating disorders. Attachment and Human Development, 2011, 13, 155-167.	1.2	28
95	Towards a movement quantification system capable of automatic evaluation of upper limb motor function after neurological injury. , 2011, 2011, 5456-60.		11
96	Quantitative movement analysis differentiates focal seizures characterized by automatisms. Epilepsy and Behavior, 2011, 20, 642-647.	0.9	24
97	Ictal head turning in frontal and temporal lobe epilepsy. Epilepsia, 2011, 52, 1447-1451.	2.6	17
98	A Novel Dry Active Biosignal Electrode Based on an Hybrid Organic-Inorganic Interface Material. IEEE Sensors Journal, 2011, 11, 2241-2245.	2.4	30
99	Biometric Authentication with Electroencephalograms: Evaluation of Its Suitability Using Visual Evoked Potentials. Communications in Computer and Information Science, 2011, , 290-306.	0.4	5
100	Functional Brain Mapping by Methods of Evolutionary Natural Selection. Lecture Notes in Computer Science, 2011, , 293-299.	1.0	0
101	Significance of lateralization of upper limb automatisms in temporal lobe epilepsy: A quantitative movement analysis. Epilepsia, 2010, 51, 2140-2146.	2.6	15
102	On-line control of light intensity in a microalgal bioreactor using a novel automatic system. Enzyme and Microbial Technology, 2008, 42, 554-559.	1.6	15
103	Automated Topographic Segmentation and Transit Time Estimation in Endoscopic Capsule Exams. IEEE Transactions on Medical Imaging, 2008, 27, 19-27.	5.4	78
104	Towards a human-robot interface based on the electrical activity of the brain. , 2008, , .		8
105	Authentication Architecture for Region-Wide e-Health System with Smartcards and a PKI. Communications in Computer and Information Science, 2008, , 479-492.	0.4	0
106	Authentication Architecture for eHealth Professionals. Lecture Notes in Computer Science, 2007, , 1583-1600.	1.0	6
107	Lateralizing Significance of Quantitative Analysis of Head Movements before Secondary Generalization of Seizures of Patients with Temporal Lobe Epilepsy. Epilepsia, 2007, 48, 524-530.	2.6	35
108	A Novel Dry Active Electrode for EEG Recording. IEEE Transactions on Biomedical Engineering, 2007, 54, 162-165.	2.5	124

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109	MPEG-7 Visual Descriptorsâ€"Contributions for Automated Feature Extraction in Capsule Endoscopy. IEEE Transactions on Circuits and Systems for Video Technology, 2006, 16, 628-637.	5.6	148
110	EpiGauss: Spatio-temporal Characterization of Epiletogenic Activity Applied to Hypothalamic Hamartomas. Lecture Notes in Computer Science, 2006, , 680-690.	1.0	0
111	What Does an Epileptiform Spike Look Like in MEG? Comparison Between Coincident EEG and MEG Spikes. Journal of Clinical Neurophysiology, 2005, 22, 68-73.	0.9	32
112	Extracting clinical information from endoscopic capsule exams using MPEG-7 visual descriptors. , 2005, , .		15
113	Interictal spike EEG source analysis in hypothalamic hamartoma epilepsy. Clinical Neurophysiology, 2002, 113, 1961-1969.	0.7	28
114	Movement quantification in epileptic seizures: a new approach to video-EEG analysis. IEEE Transactions on Biomedical Engineering, 2002, 49, 565-573.	2.5	62
115	On-Line Determination of Biomass in a Microalga Bioreactor Using a Novel Computerized Flow Injection Analysis System. Biotechnology Progress, 2002, 18, 1387-1391.	1.3	36
116	A new and fast nonlinear method for association analysis of biosignals. IEEE Transactions on Biomedical Engineering, 2000, 47, 757-763.	2.5	10
117	Agents Working on the Integration of Heterogeneous Information Sources in Distributed Healthcare Environments. Lecture Notes in Computer Science, 2000, , 136-145.	1.0	1
118	SIGIF: a digital signal interchange format with application in neurophysiology. IEEE Transactions on Biomedical Engineering, 1997, 44, 413-418.	2.5	7
119	Scalp EEG recording: interictal/ictal location and spreading of epileptiform events. Acta Neurologica Scandinavica, 1994, 89, 17-19.	1.0	0