AntÃ´nio BÃ³

List of Publications by Year
in descending order

64 papers	829 citations	567281 15 h-index	642732 23 g-index
67 all docs	67 docs citations	67 times ranked	841 citing authors

#	Article	IF	Citations
1	Tracking and Classification of Head Movement for Augmentative and Alternative Communication Systems. Sensors, 2022, 22, 435.	3.8	5
2	User-centered design and spatially-distributed sequential electrical stimulation in cycling for individuals with paraplegia. Journal of NeuroEngineering and Rehabilitation, 2022, 19, 45.	4.6	2
3	A Kinematic Information Acquisition Model That Uses Digital Signals from an Inertial and Magnetic Motion Capture System. Sensors, 2022, 22, 4898.	3.8	1
4	Passive Knee Orthoses Assistance in Functional Electrical Stimulation Cycling in an Individual With Spinal Cord Injury. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 690-698.	4.9	1
5	Simulation studies on hybrid neuroprosthesis control strategies for gait at low speeds. Biomedical Signal Processing and Control, 2021, 70, 102970.	5.7	3
6	Control Strategies for Gait Tele-Rehabilitation System Based on Parallel Robotics. Applied Sciences (Switzerland), 2021, 11, 11095.	2.5	5
7	Towards balance assessment using Openpose. , 2021, 2021, 7605-7608.		5
8	Telerehabilitation based on serious video games as support in the recovery of the musculoskeletal system. , 2020, , .		2
9	Upper Limb Physical Rehabilitation Using Serious Videogames and Motion Capture Systems: A Systematic Review. Sensors, 2020, 20, 5989.	3.8	47
10	Comparing Spatially Distributed and Single Electrode Stimulation on Individuals with Spinal Cord Injury. , 2020, 2020, 3293-3296.		1
11	Symmetry Analysis of Amputee Gait Based on Body Center of Mass Trajectory and Discrete Fourier Transform. Sensors, 2020, 20, 2392.	3.8	6
12	Intuitive and Modular Software Architecture for Functional Electrical Stimulation Rehabilitation. , 2020, , .		1
13	Simulation of the assistance of passive knee orthoses in FES cycling*. , 2019, 2019, 3811-3814.		2
14	Assisted Grasping in Individuals with Tetraplegia: Improving Control through Residual Muscle Contraction and Movement. Sensors, 2019, 19, 4532.	3.8	17
15	Integrating hip exosuit and FES for lower limb rehabilitation in a simulation environment. IFAC-PapersOnLine, 2019, 51, 302-307.	0.9	12
16	Muscle Fatigue and the Importance of Electrical Stimulation Parameters on Functional Electrical Stimulation. IFMBE Proceedings, 2019, , 307-313.	0.3	1
17	Automatic Detection of Stimulation Artifacts to Isolate Volitional from Evoked EMG Activity. IFAC-PapersOnLine, 2018, 51, 282-287.	0.9	7
18	Investigating Upper Limb Movement Classification on Users with Tetraplegia as a Possible Neuroprosthesis Interface. , 2018, 2018, 5053-5056.		1

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19	Overview of FES-Assisted Cycling Approaches and Their Benefits on Functional Rehabilitation and Muscle Atrophy. Advances in Experimental Medicine and Biology, 2018, 1088, 561-583.	1.6	6
20	Polymer Optical Fiber Sensors in Wearable Devices: Toward Novel Instrumentation Approaches for Gait Assistance Devices. IEEE Sensors Journal, 2018, 18, 7085-7092.	4.7	57
21	Exosuit for Alternative Hip Actuation, A Prove of Concept. , 2018, , .		1
22	Kilohertz and Low-Frequency Electrical Stimulation With the Same Pulse Duration Have Similar Efficiency for Inducing Isometric Knee Extension Torque and Discomfort. American Journal of Physical Medicine and Rehabilitation, 2017, 96, 388-394.	1.4	25
23	Cadence Tracking and Disturbance Rejection in Functional Electrical Stimulation Cycling for Paraplegic Subjects: A Case Study. Artificial Organs, 2017, 41, E185-E195.	1.9	13
24	Cycling with Spinal Cord Injury: A Novel System for Cycling Using Electrical Stimulation for Individuals with Paraplegia, and Preparation for Cybathlon 2016. IEEE Robotics and Automation Magazine, 2017, 24, 58-65.	2.0	21
25	Hand gestures recognition using electromyography for bilateral upper limb rehabilitation. , 2017, , .		5
26	Towards transfers in paraplegia assisted by electrical stimulation and inertial system. , 2017, , .		4
27	Individual hand movement detection and classification using peripheral nerve signals. , 2017, , .		9
28	FES Bike Race preparation to Cybathlon 2016 by EMA team: a short case report. European Journal of Translational Myology, 2017, 27, 7169.	1.7	17
29	Automatic Human Movement Assessment With Switching Linear Dynamic System: Motion Segmentation and Motor Performance. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 628-640.	4.9	24
30	Towards parameters and protocols to recommend FES-Cycling in cases of paraplegia: a preliminary report. European Journal of Translational Myology, 2016, 26, 6085.	1.7	15
31	Electrical stimulation to reduce the overload in upper limbs during sitting pivot transfer in paraplegic: a preliminary study. European Journal of Translational Myology, 2016, 26, 6223.	1.7	7
32	A Comparative Study on Control Strategies for FES Cycling Using a Detailed Musculoskeletal Model. IFAC-PapersOnLine, 2016, 49, 204-209.	0.9	12
33	FES-induced co-activation of antagonist muscles for upper limb control and disturbance rejection. Medical Engineering and Physics, 2016, 38, 1176-1184.	1.7	25
34	Using General-Purpose Serial-Link Manipulators for Laparoscopic Surgery with Moving Remote Center of Motion. Journal of Medical Robotics Research, 2016, 01, 1650007.	1.2	17
35	Elbow Control using Functional Electrical Stimulation: an Experimental Comparison of Different Control Strategies. IFAC-PapersOnLine, 2015, 48, 343-347.	0.9	2
36	Methodology for automatic movement cycle extraction using Switching Linear Dynamic System. , 2015, , .		1

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37	Kinematic modeling and control for human-robot cooperation considering different interaction roles. Robotica, 2015, 33, 314-331.	1.9	17
38	Exploring the Use of Coupled Oscillators for Humanoid Gait Control. , 2014, , .		0
39	On the Use of Fixedâ€Intensity Functional Electrical Stimulation for Attenuating Essential Tremor. Artificial Organs, 2014, 38, 984-991.	1.9	29
40	An above-knee prosthesis with magnetorheological variable-damping. , 2014, , .		16
41	A programmable remote center-of-motion controller for minimally invasive surgery using the dual quaternion framework. , 2014, , .		12
42	Design of variable-damping control for prosthetic knee based on a simulated biped. , 2013, 2013, 6650364.		8
43	On the use of discrete steps in robot-aided flexible needle insertion. , 2013, 2013, 4867-70.		1
44	An EKF-based approach for estimating leg stiffness during walking. , 2013, 2013, 7226-8.		0
45	A COMPARISON OF A PASSIVE AND VARIABLE-DAMPING CONTROLLED LEG PROSTHESIS IN A SIMULATED ENVIRONMENT. , 2013, , .		0
46	Manipulator Control Based on the Dual Quaternion Framework for Intuitive Teleoperation Using Kinect. , 2012, , .		12
47	Joint angle estimation in rehabilitation with inertial sensors and its integration with Kinect. , 2011, 2011, 3479-83.		72
48	Robust 3D tracking for robotic-assisted beating heart surgery. , 2011, 2011, 6686.		4
49	Interactive manipulation between a human and a humanoid: When robots control human arm motion. , 2011, , .		0
50	Pathological Tremor and Voluntary Motion Modeling and Online Estimation for Active Compensation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 177-185.	4.9	40
51	Towards robust 3D visual tracking for motion compensation in beating heart surgery. Medical Image Analysis, 2011, 15, 302-315.	11.6	58
52	Interactive manipulation between a human and a humanoid: When robots control human arm motion. , 2011, , .		1
53	On the use of FES to attenuate tremor by modulating joint impedance. , 2011, , .		5
54	Towards a cooperative framework for interactive manipulation involving a human and a humanoid. , 2011, , .		13

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55	Motion Tracking for Beating Heart Surgery. , 2011, , 497-524.		3
56	Tremor attenuation using FES-based joint stiffness control. , 2010, , .		14
57	Beating heart motion prediction for robust visual tracking. , 2010, , .		31
58	Robust 3D Visual Tracking for Robotic-Assisted Cardiac Interventions. Lecture Notes in Computer Science, 2010, 13, 267-274.	1.3	20
59	Exploring Peripheral Mechanism of Tremor on Neuromusculoskeletal Model: A General Simulation Study. IEEE Transactions on Biomedical Engineering, 2009, 56, 2359-2369.	4.2	37
60	Filtering voluntary motion for pathological tremor compensation. , 2009, , .		3
61	FES-controlled co-contraction strategies for pathological tremor compensation. , 2009, , .		16
62	Motion prediction for tracking the beating heart. , 2008, 2008, 3261-4.		20
63	Online pathological tremor characterization using extended Kalman filtering. , 2008, 2008, 1753-6.		12
64	Design and experimental evaluation of rotor speed regulators for model helicopters in a test bench. , 2007, , .		2