AntÃ´nio BÃ³

List of Publications by Year
in descending order

64 papers	829 citations	15 h-index
	567281	

23 g-index
642732

67 all docs	67 docs citations	67 times ranked	841 citing authors

#	Article	IF	Citations
1	Joint angle estimation in rehabilitation with inertial sensors and its integration with Kinect. , 2011, 2011, 3479-83.		72
2	Towards robust 3D visual tracking for motion compensation in beating heart surgery. Medical Image Analysis, 2011, 15, 302-315.	11.6	58
3	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
4	Upper Limb Physical Rehabilitation Using Serious Videogames and Motion Capture Systems: A Systematic Review. Sensors, 2020, 20, 5989.	3.8	47
5	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
6	Exploring Peripheral Mechanism of Tremor on Neuromusculoskeletal Model: A General Simulation Study. IEEE Transactions on Biomedical Engineering, 2009, 56, 2359-2369.	4.2	37
7	Beating heart motion prediction for robust visual tracking. , 2010, , .		31
8	On the Use of Fixedâ€Intensity Functional Electrical Stimulation for Attenuating Essential Tremor. Artificial Organs, 2014, 38, 984-991.	1.9	29
9	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
10	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
11	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
12	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
13	Motion prediction for tracking the beating heart. , 2008, 2008, 3261-4.		20
14	Robust 3D Visual Tracking for Robotic-Assisted Cardiac Interventions. Lecture Notes in Computer Science, 2010, 13, 267-274.	1.3	20
15	Kinematic modeling and control for human-robot cooperation considering different interaction roles. Robotica, 2015, 33, 314-331.	1.9	17
16	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
17	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
18	Assisted Grasping in Individuals with Tetraplegia: Improving Control through Residual Muscle Contraction and Movement. Sensors, 2019, 19, 4532.	3.8	17

#	Article	IF	Citations
19	FES-controlled co-contraction strategies for pathological tremor compensation. , 2009, , .		16
20	An above-knee prosthesis with magnetorheological variable-damping. , 2014, , .		16
21	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
22	Tremor attenuation using FES-based joint stiffness control. , 2010, , .		14
23	Towards a cooperative framework for interactive manipulation involving a human and a humanoid. , 2011, , .		13
24	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
25	Online pathological tremor characterization using extended Kalman filtering. , 2008, 2008, 1753-6.		12
26	Manipulator Control Based on the Dual Quaternion Framework for Intuitive Teleoperation Using Kinect. , 2012, , .		12
27	A programmable remote center-of-motion controller for minimally invasive surgery using the dual quaternion framework. , 2014, , .		12
28	A Comparative Study on Control Strategies for FES Cycling Using a Detailed Musculoskeletal Model. IFAC-PapersOnLine, 2016, 49, 204-209.	0.9	12
29	Integrating hip exosuit and FES for lower limb rehabilitation in a simulation environment. IFAC-PapersOnLine, 2019, 51, 302-307.	0.9	12
30	Individual hand movement detection and classification using peripheral nerve signals. , 2017, , .		9
31	Design of variable-damping control for prosthetic knee based on a simulated biped. , 2013, 2013, 6650364.		8
32	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
33	Automatic Detection of Stimulation Artifacts to Isolate Volitional from Evoked EMG Activity. IFAC-PapersOnLine, 2018, 51, 282-287.	0.9	7
34	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
35	Symmetry Analysis of Amputee Gait Based on Body Center of Mass Trajectory and Discrete Fourier Transform. Sensors, 2020, 20, 2392.	3.8	6
36	On the use of FES to attenuate tremor by modulating joint impedance. , 2011, , .		5

#	ARTICLE	IF	CITATIONS
37	Hand gestures recognition using electromyography for bilateral upper limb rehabilitation. , 2017, , .		5
38	Control Strategies for Gait Tele-Rehabilitation System Based on Parallel Robotics. Applied Sciences (Switzerland), 2021, 11, 11095.	2.5	5
39	Towards balance assessment using Openpose. , 2021, 2021, 7605-7608.		5
40	Tracking and Classification of Head Movement for Augmentative and Alternative Communication Systems. Sensors, 2022, 22, 435.	3.8	5
41	Robust 3D tracking for robotic-assisted beating heart surgery. , 2011, 2011, 6686.		4
42	Towards transfers in paraplegia assisted by electrical stimulation and inertial system. , 2017, , .		4
43	Filtering voluntary motion for pathological tremor compensation. , 2009, , .		3
44	Simulation studies on hybrid neuroprosthesis control strategies for gait at low speeds. Biomedical Signal Processing and Control, 2021, 70, 102970.	5.7	3
45	Motion Tracking for Beating Heart Surgery. , 2011, , 497-524.		3
46	Design and experimental evaluation of rotor speed regulators for model helicopters in a test bench. , 2007, , .		2
47	Elbow Control using Functional Electrical Stimulation: an Experimental Comparison of Different Control Strategies. IFAC-PapersOnLine, 2015, 48, 343-347.	0.9	2
48	Simulation of the assistance of passive knee orthoses in FES cycling*. , 2019, 2019, 3811-3814.		2
49	Telerehabilitation based on serious video games as support in the recovery of the musculoskeletal system. , 2020, , .		2
50	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
51	Interactive manipulation between a human and a humanoid: When robots control human arm motion. , 2011, , .		1
52	On the use of discrete steps in robot-aided flexible needle insertion. , 2013, 2013, 4867-70.		1
53	Methodology for automatic movement cycle extraction using Switching Linear Dynamic System. , 2015, , .		1
54	Investigating Upper Limb Movement Classification on Users with Tetraplegia as a Possible Neuroprosthesis Interface. , 2018, 2018, 5053-5056.		1

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55	Muscle Fatigue and the Importance of Electrical Stimulation Parameters on Functional Electrical Stimulation. IFMBE Proceedings, 2019, , 307-313.	0.3	1
56	Comparing Spatially Distributed and Single Electrode Stimulation on Individuals with Spinal Cord Injury. , 2020, 2020, 3293-3296.		1
57	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
58	Exosuit for Alternative Hip Actuation, A Prove of Concept. , 2018, , .		1
59	Intuitive and Modular Software Architecture for Functional Electrical Stimulation Rehabilitation. , 2020, , .		1
60	A Kinematic Information Acquisition Model That Uses Digital Signals from an Inertial and Magnetic Motion Capture System. Sensors, 2022, 22, 4898.	3.8	1
61	Interactive manipulation between a human and a humanoid: When robots control human arm motion. , 2011, , .		0
62	An EKF-based approach for estimating leg stiffness during walking. , 2013, 2013, 7226-8.		0
63	Exploring the Use of Coupled Oscillators for Humanoid Gait Control. , 2014, , .		0
64	A COMPARISON OF A PASSIVE AND VARIABLE-DAMPING CONTROLLED LEG PROSTHESIS IN A SIMULATED ENVIRONMENT. , 2013, , .		0