Arturo Forner-Cordero

List of Publications by Year
in descending order

90 papers	1,314 citations	430843 18 h-index	395678 33 g-index
92 all docs	92 docs citations	92 times ranked	1498 citing authors

#	ARTICLE	IF	CITATIONS
1	Use of pressure insoles to calculate the complete ground reaction forces. Journal of Biomechanics, 2004, 37, 1427-1432.	2.1	138
2	Multiple-step strategies to recover from stumbling perturbations. Gait and Posture, 2003, 18, 47-59.	1.4	91
3	Inverse dynamics calculations during gait with restricted ground reaction force information from pressure insoles. Gait and Posture, 2006, 23, 189-199.	1.4	76
4	Biologically based design of an actuator system for a knee–ankle–foot orthosis. Mechanism and Machine Theory, 2009, 44, 860-872.	4.5	66
5	Study of the motion artefacts of skin-mounted inertial sensors under different attachment conditions. Physiological Measurement, 2008, 29, N21-N31.	2.1	64
6	Changes in corticomotor excitability following prolonged muscle tendon vibration. Behavioural Brain Research, 2008, 190, 41-49.	2.2	55
7	Predictive Factors of Response to Decongestive Therapy in Patients with Breast-Cancer-Related Lymphedema. Annals of Surgical Oncology, 2010, 17, 744-751.	1.5	50
8	Surface electromyography analysis for variable gait. Gait and Posture, 2003, 18, 109-117.	1.4	48
9	Chronic Low Quality Sleep Impairs Postural Control in Healthy Adults. PLoS ONE, 2016, 11, e0163310.	2.5	48
10	Describing gait as a sequence of states. Journal of Biomechanics, 2006, 39, 948-957.	2.1	47
11	Principal component analysis of complex multijoint coordinative movements. Biological Cybernetics, 2005, 93, 63-78.	1.3	40
12	Mechanical model of the recovery from stumbling. Biological Cybernetics, 2004, 91, 212-220.	1.3	35
13	Properties of Shoe Insert Materials Related to Shock Wave Transmission During Gait. Foot and Ankle International, 1995, 16, 778-786.	2.3	28
14	Comparison of sleep quality assessed by actigraphy and questionnaires to healthy subjects. Sleep Science, 2018, 11, 141-145.	1.0	26
15	Exoskeletons for Rehabilitation and Motor Control. , 0, , .		24
16	Walking with perturbations: a guide for biped humans and robots. Bioinspiration and Biomimetics, 2018, 13, 061001.	2.9	24
17	Energy analysis of human stumbling: the limitations of recovery. Gait and Posture, 2005, 21, 243-254.	1.4	23
18	Interactions between interlimb and intralimb coordination during the performance of bimanual multijoint movements. Experimental Brain Research, 2005, 163, 515-526.	1.5	21

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19	Social jetlag impairs balance control. Scientific Reports, 2018, 8, 9406.	3.3	21
20	Actigraphy-based evaluation of sleep quality and physical activity in individuals with spinal cord injury. Spinal Cord Series and Cases, 2019, 5, 7.	0.6	21
21	Analysis of the human interaction with a wearable lower-limb exoskeleton. Applied Bionics and Biomechanics, 2009, 6, 245-256.	1.1	20
22	Influence of Age, Gender, and Obesity on the Mechanical Properties of the Heel Pad under Walking Impact Conditions. Journal of Applied Biomechanics, 2002, 18, 345-356.	0.8	19
23	Effects of Interlimb and Intralimb Constraints on Bimanual Shoulder–Elbow and Shoulder–Wrist Coordination Patterns. Journal of Neurophysiology, 2005, 94, 2139-2149.	1.8	17
24	Shoulder muscle activity and perceived comfort of industry workers using a commercial upper limb exoskeleton for simulated tasks. Applied Ergonomics, 2022, 101, 103718.	3.1	17
25	Analysis of the Human Interaction with a Wearable Lower-Limb Exoskeleton. Applied Bionics and Biomechanics, 2009, 6, 245-256.	1.1	16
26	Gait kinematic analysis in patients with a mild form of central cord syndrome. Journal of NeuroEngineering and Rehabilitation, 2011, 8, 7.	4.6	16
27	Kinematics and Dynamics of Wearable Robots. , 0, , 47-85.		12
28	Coordination of complex bimanual multijoint movements under increasing cycling frequencies: The prevalence of mirror-image and translational symmetry. Acta Psychologica, 2009, 130, 183-195.	1.5	12
29	A controller perspective on biological gait control: Reflexes and central pattern generators. Annual Reviews in Control, 2019, 48, 392-400.	7.9	12
30	Evidence for Adaptive Shoulder-Elbow Control in Cyclical Movements With Different Amplitudes, Frequencies, and Orientations. Journal of Motor Behavior, 2008, 40, 499-515.	0.9	11
31	Posture Control and Complex Arm Coordination: Analysis of Multijoint Coordinative Movements and Stability of Stance. Journal of Motor Behavior, 2007, 39, 215-226.	0.9	10
32	Shoulder muscles electromyographic responses in automotive workers wearing a commercial exoskeleton. , 2020, 2020, 4917-4920.		10
33	Sleep deprivation affects gait control. Scientific Reports, 2021, 11, 21104.	3.3	10
34	Exoskeleton-Based Robotic Platform Applied in Biomechanical Modelling of the Human Upper Limb. Applied Bionics and Biomechanics, 2009, 6, 205-216.	1.1	8
35	Bioinspired mechanical design of an upper limb exoskeleton for rehabilitation and motor control assessment. , 2012, , .		8
36	Upper limb exoskeleton control based on sliding mode control and feedback linearization. , 2013, , .		8

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37	Improved Learning a Coincident Timing Task With a Predictable Resisting Force. Motor Control, 2018, 22, 117-133.	0.6	8
38	Elbow Joint Angle Estimation with Surface Electromyography Using Autoregressive Models. , 2018, 2018, 1472-1475.		8
39	A High-Intensity Exercise Intervention Improves Older Women Lumbar Spine and Distal Tibia Bone Microstructure and Function: A 20-Week Randomized Controlled Trial. IEEE Journal of Translational Engineering in Health and Medicine, 2020, 8, 1-8.	3.7	8
40	Kinect v2 based system for gait assessment of children with cerebral palsy in rehabilitation settings. Journal of Medical Engineering and Technology, 2020, 44, 198-202.	1.4	8
41	Exoskeleton-based robotic platform applied in biomechanical modelling of the human upper limb. Applied Bionics and Biomechanics, 2009, 6, 205-216.	1.1	7
42	A method to simulate motor control strategies to recover from perturbations: Application to a stumble recovery during gait. , 2011, 2011, 7829-32.		7
43	A comparison between three commercially available exoskeletons in the automotive industry: an electromyographic pilot study. , 2020, , .		7
44	EMG-Based Control in a Test Platform for Exoskeleton with One Degree of Freedom. , 2019, 2019, 5366-5369.		6
45	Effects of supraspinal feedback on human gait: rhythmic auditory distortion. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 159.	4.6	6
46	Industrial Upper-Limb Exoskeleton Characterization: Paving the Way to New Standards for Benchmarking. Machines, 2021, 9, 362.	2.2	6
47	Is Balance Control Affected by Sleep Deprivation? A Systematic Review of the Impact of Sleep on the Control of Balance. Frontiers in Neuroscience, 2022, 16, .	2.8	6
48	Biomechanical procedure to assess sleep restriction on motor control and learning. , 2017, 2017, 1397-1400.		5
49	Simulation of model-based impedance control applied to a biomechatronic exoskeleton with shape memory alloy actuators. , 2012, , .		4
50	Obstacle Crossing Differences Between Blind and Blindfolded Subjects After Haptic Exploration. Journal of Motor Behavior, 2016, 48, 468-478.	0.9	4
51	Modular exoskeleton design: Requirement engineering with KAOS. , 2016, , .		4
52	Real-Time Locomotion Recognition Algorithm for an Active Pelvis Orthosis to Assist Lower-Limb Amputees. IEEE Robotics and Automation Letters, 2022, 7, 7487-7494.	5.1	4
53	Biomedical instrumentation based on piezoelectric ceramics. Journal of the European Ceramic Society, 2007, 27, 4191-4194.	5.7	3
54	Detection of Gait Perturbations Based on Proprioceptive Information. Application to Limit Cycle Walkers. Applied Bionics and Biomechanics, 2012, 9, 205-220.	1.1	3

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55	Experimental assessment of a coincident timing motor task of the arm under a passive mechanical perturbation. , 2014, , .		3
56	Comparison of sleep parameters assessed by actigraphy of healthy young adults from a small town and a megalopolis in an emerging country. , 2017, , .		3
57	Model Reference Adaptive Impedance Controller Design For Modular Exoskeleton. IFAC-PapersOnLine, 2018, 51, 345-349.	0.9	3
58	Assessment of postural control after sleep deprivation with a low-cost portable force plate. , 2019, 2019, 2316-2319.		3
59	Mechatronics and bioinspiration in actuator design and control. Applied Bionics and Biomechanics, 2008, 5, 127-133.	1.1	2
60	Continuous assessment of gait stability in limit cycle walkers. , 2010, , .		2
61	Mechanical model of the recovery reaction from stumbling: effect of step length on trunk control. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2014, 36, 491.	1.6	2
62	Do humans walk like robots when crossing an obstacle without visual information?. , 2014, , .		2
63	Recovery response latencies to tripping perturbations during gait decrease with practice. , 2015, 2015, 6748-51.		2
64	Design of a lower limb exoskeleton for experimental research on gait control. , 2016, , .		2
65	Exoskeleton application to assist learning of a coincident timing motor task of the arm using passive mechanical perturbations. , 2016, , .		2
66	Elbow Joint Angle Estimation from Surface Electromyography Using Hammerstein-Wiener Models. , 2018, , .		2
67	Predicted Step Viability: a stability criterion for biped gait. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2019, 41, 1.	1.6	2
68	Elbow movement estimation based on EMG with NARX Neural Networks. , 2020, 2020, 3767-3770.		2
69	EEG Analysis in Coincident Timing Task Towards Motor Rehabilitation. , 2020, 2020, 3027-3030.		2
70	Impedance control as an optimal control problem: a novel formulation of impedance controllers as a subcase of optimal control. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	1.6	2
71	Design of a torque measurement unit for upper limbs industrial exoskeletons. , 2021, , .		2
72	Influence of visual information on optimal obstacle crossing. IFMBE Proceedings, 2009, , 2133-2137.	0.3	2

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73	Mechatronics and Bioinspiration in Actuator Design and Control. Applied Bionics and Biomechanics, 2008, 5, 127-133.	1.1	1
74	Design of a modular distributed control system for robotic exoskeletons. , 2012, , .		1
75	Compass gait control with switched reference partial feedback linearization. , 2014, , .		1
76	Dynamic simulation of hip strategy of diabetic neuropathic individuals during gait. , 2014, , .		1
77	Experimental assessment of gait with rhythmic auditory perturbations. , 2014, , .		1
78	Directional stiffness attachment design for an upper limb exoskeleton. , 2015, , .		1
79	Sleep Restriction Effects on a Robotic Guided Motor Task. , 2020, , .		1
80	Handlebar Robotic System for Bimanual Motor Control and Learning Research. Sensors, 2021, 21, 5991.	3.8	1
81	Ground reaction force patterns during gait in patients with lower limb lymphedema. Acta Fisiátrica, 2016, 23, .	0.1	1
82	Perturbation rejection and active fall recovery for biped robots based on the capture point dynamics. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2022, 44, 1.	1.6	1
83	Aplicación del análisis tridimensional de la marcha en pacientes con síndrome centromedular. Rehabilitacion, 2011, 45, 9-17.	0.4	0
84	Electromyographic analysis of transient postural responses to anterior-posterior platform translations. , 2013, , .		0
85	Daytime sleepiness affects gait auditory synchronization ability. , 2018, 2018, 4877-4880.		0
86	Walking in the 2-Step Capture Region; pushes, ramps and speed modulation. , 2019, , .		0
87	Biologically Inspired Locomotion Control of a Climbing Robot. , 0, , .		0
88	Progressive Improvement of the Model of an Exoskeleton for the Lower Limb by Applying the Modular Modelling Methodology. Machines, 2022, 10, 248.	2.2	0
89	Design of a bioinspired cable driven actuator with clutched elastic elements for the ankle. , 2021, 2021, 4824-4827.		0
90	Lower leg muscle force prediction in gait transition. , 2021, 2021, 4867-4870.		0