Marco Cempini

List of Publications by Year
in descending order

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34	2,010	471509	677142
papers	citations	17	22
		h-index	g-index

35	35	35	1764
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Review of assistive strategies in powered lower-limb orthoses and exoskeletons. Robotics and Autonomous Systems, 2015, 64, 120-136.	5.1	566
2	A light-weight active orthosis for hip movement assistance. Robotics and Autonomous Systems, 2015, 73, 123-134.	5.1	210
3	A Powered Fingerâ€“Thumb Wearable Hand Exoskeleton With Self-Aligning Joint Axes. IEEE/ASME Transactions on Mechatronics, 2015, 20, 705-716.	5.8	136
4	Self-Alignment Mechanisms for Assistive Wearable Robots: A Kinetostatic Compatibility Method. IEEE Transactions on Robotics, 2013, 29, 236-250.	10.3	116
5	Design, development, and testing of a lightweight hybrid robotic knee prosthesis. International Journal of Robotics Research, 2018, 37, 953-976.	8.5	99
6	An oscillator-based smooth real-time estimate of gait phase for wearable robotics. Autonomous Robots, 2017, 41, 759-774.	4.8	95
7	A Lightweight, Efficient Fully Powered Knee Prosthesis With Actively Variable Transmission. IEEE Robotics and Automation Letters, 2019, 4, 1186-1193.	5.1	71
8	Design and Experimental Characterization of a Shoulder-Elbow Exoskeleton With Compliant Joints for Post-Stroke Rehabilitation. IEEE/ASME Transactions on Mechatronics, 2019, 24, 1485-1496.	5.8	69
9	Enhancing brain-machine interface (BMI) control of a hand exoskeleton using electrooculography (EOG). Journal of NeuroEngineering and Rehabilitation, 2014, 11, 165.	4.6	65
10	A Mechatronic System for Robot-Mediated Hand Telerehabilitation. IEEE/ASME Transactions on Mechatronics, 2015, 20, 1753-1764.	5.8	56
11	A novel hand exoskeleton with series elastic actuation for modulated torque transfer. Mechatronics, 2019, 61, 69-82.	3.3	49
12	Kinematics and design of a portable and wearable exoskeleton for hand rehabilitation. , 2013, 2013, 6650414.		45
13	Usability test of a hand exoskeleton for activities of daily living: an example of user-centered design. Disability and Rehabilitation: Assistive Technology, 2017, 12, 84-96.	2.2	37
14	Design, Development, and Validation of a Lightweight Nonbackdrivable Robotic Ankle Prosthesis. IEEE/ASME Transactions on Mechatronics, 2019, 24, 471-482.	5.8	35
15	Functional Design of a Powered Elbow Orthosis Toward its Clinical Employment. IEEE/ASME Transactions on Mechatronics, 2016, 21, 1880-1891.	5.8	33
16	A Compact, Lightweight Robotic Ankle-Foot Prosthesis: Featuring a Powered Polycentric Design. IEEE Robotics and Automation Magazine, 2020, 27, 87-102.	2.0	31
17	Physical human-robot interaction of an active pelvis orthosis: toward ergonomic assessment of wearable robots. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 29.	4.6	30
18	On the design of ergonomic wearable robotic devices for motion assistance and rehabilitation. , 2012, 2012, 6124-7.		26

#	Article	IF	Citations
19	Vision-Based Pose Estimation for Robot-Mediated Hand Telerehabilitation. Sensors, 2016, 16, 208.	3.8	26
20	Design, development, and bench-top testing of a powered polycentric ankle prosthesis. , 2017, , .		26
21	A lightweight robotic ankle prosthesis with non-backdrivable cam-based transmission. , 2017, 2017, 1142-1147.		23
22	NEUROExos: A powered elbow orthosis for post-stroke early neurorehabilitation. , 2013, 2013, 342-5.		21
23	A novel shoulder-elbow exoskeleton with series elastic actuators. , 2016, , .		20
24	Modeling, design & characterization of a novel Passive Variable Stiffness Joint (pVSJ). , 2016, , .		19
25	A novel adaptive oscillators-based control for a powered multi-joint lower-limb orthosis. , 2015, , .		18
26	Analysis of relative displacement between the HX wearable robotic exoskeleton and the userâ€™s hand. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 147.	4.6	16
27	Technologically-advanced assessment of upper-limb spasticity: a pilot study. European Journal of Physical and Rehabilitation Medicine, 2018, 54, 536-544.	2.2	15
28	Gastrocnemius myoelectric control of a robotic hip exoskeleton. , 2015, 2015, 3881-4.		12
29	Phase-II Clinical Validation of a Powered Exoskeleton for the Treatment of Elbow Spasticity. Frontiers in Neuroscience, 2017, 11, 261.	2.8	12
30	Design and validation of a miniaturized SEA transmission system. Mechatronics, 2018, 49, 149-156.	3.3	11
31	A clutch mechanism for switching between position and stiffness control of a variable stiffness actuator. , 2015, , .		7
32	Hybrid Actuation Systems for Lightweight Transfemoral Prostheses. , 2017, , .		7
33	Relevance of Series-Elastic actuation in rehabilitation and assistance robotic: Two cases of study. , 2015, , .		3
34	A Simulation Study to Characterize the Effects of Frequency Modulation during Epidural Electrical Stimulation. Biosystems and Biorobotics, 2013, , 533-537.	0.3	0