Hannes HÃ¶ppner

List of Publications by Year
in descending order

21 papers	1,693 citations	1478505 6 h-index	1474206 9 g-index
22 all docs	22 docs citations	22 times ranked	1449 citing authors

#	Article	IF	Citations
1	Variable impedance actuators: A review. Robotics and Autonomous Systems, 2013, 61, 1601-1614.	5.1	822
2	The DLR hand arm system. , 2011, , .		330
3	Variable Stiffness Actuators: Review on Design and Components. IEEE/ASME Transactions on Mechatronics, 2016, 21, 2418-2430.	5.8	293
4	Analysis and Synthesis of the Bidirectional Antagonistic Variable Stiffness Mechanism. IEEE/ASME Transactions on Mechatronics, 2015, 20, 684-695.	5.8	72
5	CLASH: Compliant Low Cost Antagonistic Servo Hands. , 2018, , .		25
6	Key Insights into Hand Biomechanics: Human Grip Stiffness Can Be Decoupled from Force by Cocontraction and Predicted from Electromyography. Frontiers in Neurorobotics, 2017, 11, 17.	2.8	21
7	Soft Robotics with Variable Stiffness Actuators: Tough Robots for Soft Human Robot Interaction. , 2015, , 231-254.		21
8	Wrist and forearm rotation of the DLR Hand Arm System: Mechanical design, shape analysis and experimental validation. , 2011, , .		19
9	End-effector airbags to accelerate human-robot collaboration. , 2017, , .		17
10	EDAN: An EMG-controlled Daily Assistant to Help People With Physical Disabilities. , 2020, , .		16
11	Task Dependency of Grip Stiffnessâ€"A Study of Human Grip Force and Grip Stiffness Dependency during Two Different Tasks with Same Grip Forces. PLoS ONE, 2013, 8, e80889.	2.5	15
12	The Grasp Perturbator: Calibrating human grasp stiffness during a graded force task. , 2011, , .		10
13	Wrist and forearm rotation of the DLR hand arm system: Mechanical design, shape analysis and experimental validation. , 2011, , .		10
14	Human-Robotic Variable-Stiffness Grasps of Small-Fruit Containers Are Successful Even Under Severely Impaired Sensory Feedback. Frontiers in Neurorobotics, 2018, 12, 70.	2.8	9
15	Simultaneous Motion Tracking and Joint Stiffness Control of Bidirectional Antagonistic Variable-Stiffness Actuators. IEEE Robotics and Automation Letters, 2022, 7, 6614-6621.	5.1	4
16	Two-dimensional orthoglide mechanism for revealing areflexive human arm mechanical properties. , 2015, , .		2
17	Hitting the sweet spot: Automatic optimization of energy transfer during tool-held hits. , 2017, , .		2
18	Elastic Elements in a Wrist Prosthesis for Drumming Reduce Muscular Effort, but Increase Imprecision and Perceived Stress. Frontiers in Neurorobotics, 2018, 12, 9.	2.8	2

#	Article	IF	Citations
19	A new biarticular joint mechanism to extend stiffness ranges. , 2014, , .		1
20	Blindfolded robotic teleoperation using spatial force feedback to the toe. , 2017, , .		1
21	Human's Capability to Discriminate Spatial Forces at the Big Toe. Frontiers in Neurorobotics, 2018, 12, 13.	2.8	1