Mitja Trkov

List of Publications by Year
in descending order

30 papers	248 citations	1306789 7 h-index	1281420 11 g-index
30 all docs	30 docs citations	30 times ranked	185 citing authors

#	Article	IF	Citations
1	Gradient optimization of multi-layered density-graded foam laminates for footwear material design. Journal of Biomechanics, 2020, 109, 109950.	0.9	36
2	Inertial Sensor-Based Slip Detection in Human Walking. IEEE Transactions on Automation Science and Engineering, 2019, 16, 1399-1411.	3.4	33
3	A robotic bipedal model for human walking with slips. , 2015, , .		23
4	Wearable Knee Assistive Devices for Kneeling Tasks in Construction. IEEE/ASME Transactions on Mechatronics, 2021, 26, 1989-1996.	3.7	22
5	Shoeâ€"Floor Interactions in Human Walking With Slips: Modeling and Experiments. Journal of Biomechanical Engineering, 2018, 140, .	0.6	11
6	Exploring novel objective functions for simulating muscle coactivation in the neck. Journal of Biomechanics, 2018, 71, 127-134.	0.9	10
7	A Stick-Slip Interactions Model of Soft-Solid Frictional Contacts. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2019, 141, .	0.9	10
8	Real-Time Walking Gait Estimation for Construction Workers using a Single Wearable Inertial Measurement Unit (IMU). , 2021, , .		10
9	Rider/bicycle pose estimation with IMU/seat force measurements. , 2012, , .		9
10	Shoe-Floor Interactions During Human Slip and Fall: Modeling and Experiments. , 2014, , .		9
11	Balance recovery control of human walking with foot slip. , 2016, , .		9
12	Hybrid zero dynamics of human biped walking with foot slip. , 2017, , .		9
13	Design Optimization of a Pneumatic Soft Robotic Actuator Using Model-Based Optimization and Deep Reinforcement Learning. Frontiers in Robotics and AI, 2021, 8, 639102.	2.0	9
14	Bipedal Model and Hybrid Zero Dynamics of Human Walking With Foot Slip. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	0.7	7
15	Design of a Robotic Knee Assistive Device (ROKAD) for Slip-Induced Fall Prevention during Walking. IFAC-PapersOnLine, 2017, 50, 9802-9807.	0.5	6
16	Improved ergonomic risk factor assessment using opensim and inertial measurement units. , 2018, , .		5
17	Slip detection and prediction in human walking using only wearable inertial measurement units (IMUs). , 2015, , .		4
18	Compressed Gas Actuated Knee Assistive Exoskeleton for Slip-Induced Fall Prevention During Human Walking. , 2020, , .		4

#	Article	IF	Citations
19	Study of concrete drilling for automated non-destructive evaluation and rehabilitation system for bridge decks. , 2011, , .		3
20	Modeling of pure percussive drilling for autonomous robotic bridge decks rehabilitation. , 2013, , .		3
21	Postural Balance of Kneeling Gaits on Inclined and Elevated Surface for Construction Workers. , 2021, , .		3
22	Balance Recoverability and Control of Bipedal Walkers with Foot Slip. Journal of Biomechanical Engineering, 2021, , .	0.6	3
23	Stick-Slip Interactions of the Soft-Solid Contact: An Integrated LuGre/Beam Network Model Approach. , 2015, , .		2
24	Influence of Frequency Bands in EEG Signal to Predict User Intent. , 2019, , .		2
25	Recoverability-Based Optimal Control for a Bipedal Walking Model With Foot Slip. , 2021, , .		2
26	Classifying hazardous movements and loads during manual materials handling using accelerometers and instrumented insoles. Applied Ergonomics, 2022, 101, 103693.	1.7	2
27	Disturbance observer-based balance control of robotic biped walkers under slip. , 2017, , .		1
28	IntelliPad: Intelligent Soft Robotic Pad for Pressure Injury Prevention. , 2020, , .		1
29	Surface transitions and stair climbing and descent. , 2019, , 397-413.		0
30	Estimation of Lifting and Carrying Load During Manual Material Handling. Advances in Intelligent Systems and Computing, 2019, , 153-161.	0.5	0