

Hossein Rouhani

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

1,383
citations

361045

20
h-index

360668

35
g-index

66
all docs

66
docs citations

66
times ranked

1415
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative estimation of foot-flat and stance phase of gait using foot-worn inertial sensors. <i>Gait and Posture</i> , 2013, 37, 229-234.	0.6	209
2	Brain emotional learning based intelligent controller applied to neurofuzzy model of micro-heat exchanger. <i>Expert Systems With Applications</i> , 2007, 32, 911-918.	4.4	95
3	Ambulatory assessment of 3D ground reaction force using plantar pressure distribution. <i>Gait and Posture</i> , 2010, 32, 311-316.	0.6	70
4	40 years of sensor fusion for orientation tracking via magnetic and inertial measurement units: Methods, lessons learned, and future challenges. <i>Information Fusion</i> , 2021, 68, 67-84.	11.7	66
5	Multi-segment foot kinematics after total ankle replacement and ankle arthrodesis during relatively long-distance gait. <i>Gait and Posture</i> , 2012, 36, 561-566.	0.6	60
6	Measurement of Multi-segment Foot Joint Angles During Gait Using a Wearable System. <i>Journal of Biomechanical Engineering</i> , 2012, 134, 061006.	0.6	55
7	Trunk control impairment is responsible for postural instability during quiet sitting in individuals with cervical spinal cord injury. <i>Clinical Biomechanics</i> , 2015, 30, 507-512.	0.5	53
8	Validity of using wearable inertial sensors for assessing the dynamics of standing balance. <i>Medical Engineering and Physics</i> , 2020, 77, 53-59.	0.8	51
9	Outcome of unilateral ankle arthrodesis and total ankle replacement in terms of bilateral gait mechanics. <i>Journal of Orthopaedic Research</i> , 2014, 32, 377-384.	1.2	43
10	Semi-Automatic Sensor-to-Body Calibration of Inertial Sensors on Lower Limb Using Gait Recording. <i>IEEE Sensors Journal</i> , 2019, 19, 12465-12474.	2.4	39
11	Sensor-to-body calibration procedure for clinical motion analysis of lower limb using magnetic and inertial measurement units. <i>Journal of Biomechanics</i> , 2019, 85, 224-229.	0.9	39
12	A wearable system for multi-segment foot kinetics measurement. <i>Journal of Biomechanics</i> , 2014, 47, 1704-1711.	0.9	34
13	In-field instrumented ergonomic risk assessment: Inertial measurement units versus Kinect V2. <i>International Journal of Industrial Ergonomics</i> , 2021, 84, 103147.	1.5	33
14	Lumped thermal model for switched reluctance motor applied to mechanical design optimization. <i>Mathematical and Computer Modelling</i> , 2007, 45, 625-638.	2.0	29
15	Ambulatory measurement of ankle kinetics for clinical applications. <i>Journal of Biomechanics</i> , 2011, 44, 2712-2718.	0.9	29
16	A Therapist-Taught Robotic System for Assistance During Gait Therapy Targeting Foot Drop. <i>IEEE Robotics and Automation Letters</i> , 2019, 4, 407-413.	3.3	29
17	Detection of daily postures and walking modalities using a single chest-mounted tri-axial accelerometer. <i>Medical Engineering and Physics</i> , 2018, 57, 75-81.	0.8	28
18	Sensor fusion algorithms for orientation tracking via magnetic and inertial measurement units: An experimental comparison survey. <i>Information Fusion</i> , 2021, 76, 8-23.	11.7	28

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19	PID Controller Design for FES Applied to Ankle Muscles in Neuroprosthesis for Standing Balance. <i>Frontiers in Neuroscience</i> , 2017, 11, 347.	1.4	25
20	Outcome evaluation of ankle osteoarthritis treatments: Plantar pressure analysis during relatively long-distance walking. <i>Clinical Biomechanics</i> , 2011, 26, 397-404.	0.5	24
21	The influence of the aquatic environment on the control of postural sway. <i>Gait and Posture</i> , 2017, 51, 70-76.	0.6	21
22	Quantification of Triple Single-Leg Hop Test Temporospacial Parameters: A Validated Method Using Body-Worn Sensors for Functional Evaluation after Knee Injury. <i>Sensors</i> , 2020, 20, 3464.	2.1	21
23	Combined use of transcranial magnetic stimulation and metal electrode implants: a theoretical assessment of safety considerations. <i>Physics in Medicine and Biology</i> , 2012, 57, 7813-7827.	1.6	19
24	Knee Implant Loosening Detection: A Vibration Analysis Investigation. <i>Annals of Biomedical Engineering</i> , 2018, 46, 97-107.	1.3	19
25	Instrumented Ergonomic Risk Assessment Using Wearable Inertial Measurement Units: Impact of Joint Angle Convention. <i>IEEE Access</i> , 2021, 9, 7293-7305.	2.6	18
26	Segmentation of foot and ankle complex based on kinematic criteria. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2011, 14, 773-781.	0.9	17
27	Multisegment Kinematics of the Spinal Column: Soft Tissue Artifacts Assessment. <i>Journal of Biomechanical Engineering</i> , 2016, 138, .	0.6	16
28	Postural control strategy after incomplete spinal cord injury: effect of sensory inputs on trunk and leg movement coordination. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2020, 17, 141.	2.4	13
29	Characterization of standing balance after incomplete spinal cord injury: Alteration in integration of sensory information in ambulatory individuals. <i>Gait and Posture</i> , 2021, 83, 152-159.	0.6	11
30	A novel instrumented shoulder functional test using wearable sensors in patients with brachial plexus injury. <i>Journal of Shoulder and Elbow Surgery</i> , 2021, 30, e493-e502.	1.2	10
31	A Full-State Robust Extended Kalman Filter for Orientation Tracking During Long-Duration Dynamic Tasks Using Magnetic and Inertial Measurement Units. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021, 29, 1280-1289.	2.7	10
32	Using wearable sensors to characterize gait after spinal cord injury: evaluation of test-retest reliability and construct validity. <i>Spinal Cord</i> , 2021, 59, 675-683.	0.9	9
33	Closed-loop control of ankle plantarflexors and dorsiflexors using an inverted pendulum apparatus: A pilot study. <i>Journal of Automatic Control</i> , 2013, 21, 31-36.	1.0	9
34	A comparison between joint coordinate system and attitude vector for multi-segment foot kinematics. <i>Journal of Biomechanics</i> , 2012, 45, 2041-2045.	0.9	8
35	Design and Evaluation of an Instrumented Wobble Board for Assessing and Training Dynamic Seated Balance. <i>Journal of Biomechanical Engineering</i> , 2018, 140, .	0.6	8
36	Quantification of multi-segment trunk kinetics during multi-directional trunk bending. <i>Gait and Posture</i> , 2018, 64, 205-212.	0.6	8

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37	Predicted Threshold for Seated Stability: Estimation of Margin of Stability Using Wearable Inertial Sensors. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 3361-3372.	3.9	8
38	Foot angular kinematics measured with inertial measurement units: A reliable criterion for real-time gait event detection. Journal of Biomechanics, 2022, 130, 110880.	0.9	8
39	K-score: A novel scoring system to quantify fatigue-related ergonomic risk based on joint angle measurements via wearable inertial measurement units. Applied Ergonomics, 2022, 102, 103757.	1.7	8
40	Identification of ankle plantar-flexors dynamics in response to electrical stimulation. Medical Engineering and Physics, 2016, 38, 1166-1171.	0.8	7
41	The influence of the aquatic environment on the center of pressure, impulses and upper and lower trunk accelerations during gait initiation. Gait and Posture, 2017, 58, 469-475.	0.6	7
42	Optimal Estimation of Anthropometric Parameters for Quantifying Multisegment Trunk Kinetics. Journal of Biomechanical Engineering, 2018, 140, .	0.6	7
43	Predicted threshold against forward and backward loss of balance for perturbed walking. Journal of Biomechanics, 2019, 95, 109315.	0.9	7
44	Virtual Energy Regulator: A Time-Independent Solution for Control of Lower Limb Exoskeletons. IEEE Robotics and Automation Letters, 2021, 6, 7699-7705.	3.3	7
45	Investigating the validity of a single tri-axial accelerometer mounted on the head for monitoring the activities of daily living and the timed-up and go test. Gait and Posture, 2021, 90, 137-140.	0.6	7
46	Assessment of countermovement jump with and without arm swing using a single inertial measurement unit. Sports Biomechanics, 2022, , 1-18.	0.8	7
47	A method to estimate inertial properties and force plate inertial components for instrumented platforms. Medical Engineering and Physics, 2019, 66, 96-101.	0.8	5
48	Instrumented triple single-leg hop test: A validated method for ambulatory measurement of ankle and knee angles using inertial sensors. Clinical Biomechanics, 2020, 80, 105134.	0.5	5
49	Use of the extended feasible stability region for assessing stability of perturbed walking. Scientific Reports, 2021, 11, 1026.	1.6	5
50	Sensitivity of Intersegmental Angles of the Spinal Column to Errors Due to Marker Misplacement. Journal of Biomechanical Engineering, 2015, 137, .	0.6	4
51	Heel strike detection using split force-plate treadmill. Gait and Posture, 2015, 41, 863-866.	0.6	4
52	Effects of water immersion on quasi-static standing exploring center of pressure sway and trunk acceleration: a case series after incomplete spinal cord injury. Spinal Cord Series and Cases, 2019, 5, 5.	0.3	4
53	Adaptive Gain Regulation of Sensor Fusion Algorithms for Orientation Estimation with Magnetic and Inertial Measurement Units. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-13.	2.4	4
54	Accurate Tissue Deformation Modeling Using a Kalman Filter and ADMM-Based Projective Dynamics. IEEE/ASME Transactions on Mechatronics, 2022, 27, 2194-2203.	3.7	4

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55	Effects of water immersion on gait initiation: part II of a case series after incomplete spinal cord injury. <i>Spinal Cord Series and Cases</i> , 2019, 5, 84.	0.3	3
56	A Novel Testing Device to Assess the Effect of Neck Strength on Risk of Concussion. <i>Annals of Biomedical Engineering</i> , 2020, 48, 2310-2322.	1.3	3
57	Instrumented Functional Test for Objective Outcome Evaluation of Balance Rehabilitation in Elderly Fallers: A Clinical Study. <i>Gerontology</i> , 2022, 68, 1233-1245.	1.4	3
58	NEUROFUZZY MODELING OF NATURAL FREQUENCIES OF CYLINDRICAL SHELLS APPLIED TO EVOLUTIONARY BASED OPTIMAL DESIGN OF SR MOTORS. <i>International Journal of Computational Methods</i> , 2006, 03, 263-277.	0.8	2
59	Minimizing muscle fatigue through optimization of electrical stimulation parameters. <i>Journal of Biomedical Engineering and Informatics</i> , 2016, 3, 33.	0.2	2
60	Closed-loop control of standing neuroprosthesis using PID controller. , 2017, , .		2
61	Nonlinear response of human trunk musculature explains neuromuscular stabilization mechanisms in sitting posture. <i>Journal of Neural Engineering</i> , 2022, 19, 026045.	1.8	2
62	Optimal design of a flexible transferring system in press automation using fuzzy clustering. <i>Assembly Automation</i> , 2005, 25, 53-58.	1.0	1
63	An instrumented wobble board for assessing and training dynamic sitting balance. , 2017, , .		1
64	Outcome of ankle arthrodesis and total ankle replacement for ankle arthrosis in terms of gait variability. <i>Journal of Biomedical Engineering and Informatics</i> , 2015, 2, 31.	0.2	0