A Review of Accelerometry-Based Wearable Motion Detectors for Physical Activity Monitoring

Citation Report

#	ARTICLE	IF	CITATIONS
1	Effects of BMI and abdominal volume on the accuracy of step count obtained from a tri-axial accelerometer. , 2011, 2011, 3656-9.		2
2	Real-time gait cycle parameters recognition using a wearable motion detector. , 2011, , .		10
4	Wireless Portable Electrocardiogram and a Tri-Axis Accelerometer Implementation and Application on Sleep Activity Monitoring. Telemedicine Journal and E-Health, 2011, 17, 177-184.	1.6	30
5	Association between Walking Speed and Age in Healthy, Free-Living Individuals Using Mobile Accelerometryâ€"A Cross-Sectional Study. PLoS ONE, 2011, 6, e23299.	1.1	128
6	Energy-Efficient Assessment of Physical Activity Level Using Duty-Cycled Accelerometer Data. Procedia Computer Science, 2011, 5, 328-335.	1.2	8
7	Detection of falls using accelerometers and mobile phone technology. Age and Ageing, 2011, 40, 690-696.	0.7	123
8	Non-invasive low cost method for linear and angular accelerations measurement in biped locomotion mechanisms. , 2011, , .		1
9	State Derivation of a 12-Axis Gyroscope-Free Inertial Measurement Unit. Sensors, 2011, 11, 3145-3162.	2.1	10
10	Kinematics of Gait: New Method for Angle Estimation Based on Accelerometers. Sensors, 2011, 11, 10571-10585.	2.1	74
11	Real-Time Gait Cycle Parameter Recognition Using a Wearable Accelerometry System. Sensors, 2011, 11, 7314-7326.	2.1	102
12	Fall Detection with the Support Vector Machine during Scripted and Continuous Unscripted Activities. Sensors, 2012, 12, 12301-12316.	2.1	64
13	Using LS-SVM Based Motion Recognition for Smartphone Indoor Wireless Positioning. Sensors, 2012, 12, 6155-6175.	2.1	116
15	Wearable biosensors for medical applications. , 2012, , 301-330.		14
16	Methods for Recognition and Classification of Human Motion Patterns â€" A Prerequisite for Intelligent Devices Assisting in Sports Activities. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 55-61.	0.4	13
17	Validity of hip-mounted uniaxial accelerometry with heart-rate monitoring vs. triaxial accelerometry in the assessment of free-living energy expenditure in young children: the IDEFICS Validation Study. Journal of Applied Physiology, 2012, 113, 1530-1536.	1.2	26
18	Hermes: A versatile platform for wireless embedded systems. , 2012, , .		5
19	Using tri-axial acceleration data to identify behavioral modes of free-ranging animals: general concepts and tools illustrated for griffon vultures. Journal of Experimental Biology, 2012, 215, 986-996.	0.8	359
20	Virtual Caregiver: A System for Supporting Collaboration in Elderly Monitoring. , 2012, , .		4

#	Article	IF	Citations
21	Full body gait analysis with Kinect. , 2012, 2012, 1964-7.		232
22	Intelligent clothing for automated recognition of human physical activities in free-living environment. Journal of the Textile Institute, 2012, 103, 806-816.	1.0	6
23	MEMS accelerometers and their bio-applications. , 2012, , .		8
25	Wrist-worn accelerometers in assessment of energy expenditure during intensive training. Physiological Measurement, 2012, 33, 1841-1854.	1.2	43
26	A Self Organizing Map Based Motion Classifier with an Extension to Fall Detection Problem and Its Implementation on a Smartphone. , 2012, , .		3
27	Environmental perceptions and objective walking trail audits inform a community-based participatory research walking intervention. International Journal of Behavioral Nutrition and Physical Activity, 2012, 9, 6.	2.0	27
28	Daily physical activity assessment with accelerometers: new insights and validation studies. Obesity Reviews, 2013, 14, 451-462.	3.1	236
29	SVM-based posture identification with a single waist-located triaxial accelerometer. Expert Systems With Applications, 2013, 40, 7203-7211.	4.4	76
30	Using wireless technology in clinical practice: does feedback of daily walking activity improve walking outcomes of individuals receiving rehabilitation post-stroke? Study protocol for a randomized controlled trial. BMC Neurology, 2013, 13, 93.	0.8	18
31	Motor recovery monitoring using acceleration measurements in post acute stroke patients. BioMedical Engineering OnLine, 2013, 12, 33.	1.3	31
33	Quantitative analysis of gait and balance response to deep brain stimulation in Parkinson's disease. Gait and Posture, 2013, 38, 109-114.	0.6	31
34	Comparison of median frequency between traditional and functional sensor placements during activity monitoring. Measurement: Journal of the International Measurement Confederation, 2013, 46, 2193-2200.	2.5	4
35	Toward a Passive Low-Cost In-Home Gait Assessment System for Older Adults. IEEE Journal of Biomedical and Health Informatics, 2013, 17, 346-355.	3.9	169
36	iBalance-ABF: A Smartphone-Based Audio-Biofeedback Balance System. IEEE Transactions on Biomedical Engineering, 2013, 60, 211-215.	2.5	68
37	Developing and Applying a Tri-axial Accelerometer Sensor for Measuring Real Time Kayak Cadence. Procedia Engineering, 2013, 60, 16-21.	1.2	6
38	Degradation Mechanisms of Contact Point During Switching Operation of MEMS Switch. Journal of Microelectromechanical Systems, 2013, 22, 828-834.	1.7	16
39	A pilot study on the use of accelerometer sensors for monitoring post acute stroke patients. , 2013, 2013, 957-60.		2
40	Review of fall risk assessment in geriatric populations using inertial sensors. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 91.	2.4	282

#	Article	IF	Citations
41	MET calculations from on-body accelerometers for exergaming movements. , 2013, , .		13
42	Fall detection algorithm based on triaxial accelerometer data. , 2013, , .		10
43	Joint segmentation of multivariate time series with hidden process regression for human activity recognition. Neurocomputing, 2013, 120, 633-644.	3.5	71
44	Gait Cycle Recognition based on Wireless Inertial Sensor Network. IERI Procedia, 2013, 4, 44-52.	0.3	6
45	Individual and intervention-related factors associated with adherence toÂhome exercise in chronic low back pain: a systematic review. Spine Journal, 2013, 13, 1940-1950.	0.6	192
46	Design and evaluation of a device worn for fall detection and localization: Application for the continuous monitoring of risks incurred by dependents in an Alzheimerâ€™s care unit. Expert Systems With Applications, 2013, 40, 7316-7330.	4.4	38
47	Continuous Hidden Markov Model for Pedestrian Activity Classification and Gait Analysis. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 1073-1083.	2.4	107
48	ACCELEROMETRY-BASED LONG-TERM MONITORING OF MOVEMENT DISORDERS: FROM DIURNAL GAIT BEHAVIOR TO NOCTURNAL BED MOBILITY. Journal of Mechanics in Medicine and Biology, 2013, 13, 1350041.	0.3	19
49	A pilot survey of physical activity in men with an intellectual disability. Journal of Intellectual Disabilities, 2013, 17, 157-167.	1.0	30
50	iSeniorâ€"A Support System for Elderly Citizens. IEEE Transactions on Emerging Topics in Computing, 2013, 1, 207-217.	3.2	7
51	WiCard: A context aware wearable wireless sensor for cardiac monitoring. , 2013, , .		5
52	Characterizing Suitability of Wearable Sensors for Movement Analysis Using a Programmed Robotic Motion. , 2013, , .		0
53	An evaluation of wearable activity monitoring devices. , 2013, , .		53
54	Evaluating the accuracy of a mobile Kinect-based gait-monitoring system for fall prediction. , 2013, , .		26
55	Real-Time Human Ambulation, Activity, and Physiological Monitoring: Taxonomy of Issues, Techniques, Applications, Challenges and Limitations. Sensors, 2013, 13, 12852-12902.	2.1	123
56	A Wearable Inertial Measurement Unit for Long-Term Monitoring in the Dependency Care Area. Sensors, 2013, 13, 14079-14104.	2.1	60
57	Guest Editorial Special Issue on Medical Imaging and Image Computing in Computational Physiology. IEEE Transactions on Medical Imaging, 2013, 32, 1-7.	5.4	8
58	Human Behavior Cognition Using Smartphone Sensors. Sensors, 2013, 13, 1402-1424.	2.1	118

#	Article	IF	Citations
59	Design of a Wearable Sensing System for Human Motion Monitoring in Physical Rehabilitation. Sensors, 2013, 13, 7735-7755.	2.1	31
60	Wireless Prototype Based on Pressure and Bending Sensors for Measuring Gate Quality. Sensors, 2013, 13, 9679-9703.	2.1	16
61	Calibration and validation of homeostasis parameters estimates produced by a DSP embedded in a wheelchair. , 2013, , .		1
62	Elderly Gait Analysis and Assessment Based on Body Area Network. , 2013, , .		0
63	Situation awareness via sensor-equipped eyeglasses. , 2013, , .		15
64	Analysis of subtle movements related to neurodegenerative diseases using wearable inertial sensors: A study in healthy subjects. , 2013, 2013, 6119-22.		2
66	Comprehensive feature extraction for objective <i>Dynamic Gait Index</i> assessment of risk of falls in the elderly. Journal of Physics: Conference Series, 2013, 477, 012029.	0.3	3
67	Muscle Contraction: The Subtle Way of Human Computer Interaction. Research Journal of Applied Sciences, Engineering and Technology, 2013, 6, 2192-2196.	0.1	1
68	Could Local Dynamic Stability Serve as an Early Predictor of Falls in Patients with Moderate Neurological Gait Disorders? A Reliability and Comparison Study in Healthy Individuals and in Patients with Paresis of the Lower Extremities. PLoS ONE, 2014, 9, e100550.	1.1	52
69	Wild state secrets: ultra€sensitive measurement of micro€movement can reveal internal processes in animals. Frontiers in Ecology and the Environment, 2014, 12, 582-587.	1.9	43
70	Classification of Stair Ascent and Descent in Stroke Patients. , 2014, , .		15
71	A Smart Safety Helmet using IMU and EEG sensors for worker fatigue detection. , 2014, , .		45
72	A Flexible Accelerometer System for Human Pulse Monitoring. Materials Research Society Symposia Proceedings, 2014, 1690, 1.	0.1	3
73	Highly Sensitive Flexible Printed Accelerometer System for Monitoring Vital Signs. Soft Robotics, 2014, 1, 132-135.	4.6	21
74	Gross motor function is an important predictor of daily physical activity in young people with bilateral spastic cerebral palsy. Developmental Medicine and Child Neurology, 2014, 56, 1163-1171.	1.1	28
75	Detecting Falls with Wearable Sensors Using Machine Learning Techniques. Sensors, 2014, 14, 10691-10708.	2.1	283
76	Optimal Sensor Placement for Measuring Physical Activity with a 3D Accelerometer. Sensors, 2014, 14, 3188-3206.	2.1	54
77	Evaluation of Prompted Annotation of Activity Data Recorded from a Smart Phone. Sensors, 2014, 14, 15861-15879.	2.1	41

#	Article	IF	Citations
78	Comparison and Characterization of Android-Based Fall Detection Systems. Sensors, 2014, 14, 18543-18574.	2.1	75
79	Considerations for development of sensing and monitoring tools to facilitate treatment and care of persons with lower-limb loss: A review. Journal of Rehabilitation Research and Development, 2014, 51, 1-14.	1.6	67
80	Measurement of Bed Turning and Comparison with Age, Gender, and Body Mass Index in a Healthy Population: Application of a Novel Mobility Detection System. BioMed Research International, 2014, 2014, 1-10.	0.9	6
81	An Enhanced Sensing Application Based on a Flexible Projected Capacitive-Sensing Mattress. Sensors, 2014, 14, 6922-6937.	2.1	27
82	Orientation Measurement Based on Magnetic Inductance by the Extended Distributed Multi-Pole Model. Sensors, 2014, 14, 11504-11521.	2.1	13
83	An Online Full-Body Motion Recognition Method Using Sparse and Deficient Signal Sequences. Mathematical Problems in Engineering, 2014, 2014, 1-10.	0.6	1
84	Continuous Human Location and Posture Tracking by Multiple Depth Sensors. , 2014, , .		2
85	Combined passive radiofrequency identification and machine learning technique to recognize human motion. , 2014, , .		7
86	An Analytical Model for Porous Polymer-Ceramic Capacitive Pressure Sensors. IEEE Sensors Journal, 2014, 14, 4411-4422.	2.4	5
88	Monitoring Daily Function in Persons With Transfemoral Amputations Using a Commercial Activity Monitor: A Feasibility Study. PM and R, 2014, 6, 1120-1127.	0.9	24
90	A feasibility study of using a single Kinect sensor for rehabilitation exercises monitoring: A rule based approach. , 2014, , .		33
91	A portable system with sample rate of 250ÂHz for characterization of knee and hip angles in the sagittal plane during gait. BioMedical Engineering OnLine, 2014, 13, 34.	1.3	3
92	GaitAssist. , 2014, , .		62
93	Posture and Movement Classification: The Comparison of Tri-Axial Accelerometer Numbers and Anatomical Placement. Journal of Biomechanical Engineering, 2014, 136, 051003.	0.6	33
94	Aging, Place, and Technology. Journal of Aging and Health, 2014, 26, 1373-1389.	0.9	68
95	Smart wearable body sensors for patient self-assessment and monitoring. Archives of Public Health, 2014, 72, 28.	1.0	333
96	Interdevice baseline signal magnitude variability of the ActivPAL3 activity monitor. Gait and Posture, 2014, 39, 618-620.	0.6	1
98	ActiTrainer-determined segmented moderate-to-vigorous physical activity patterns among normal-weight and overweight-to-obese Czech schoolchildren. European Journal of Pediatrics, 2014, 173, 321-329.	1.3	25

#	Article	IF	Citations
99	Highly Accurate Recognition of Human Postures and Activities Through Classification With Rejection. IEEE Journal of Biomedical and Health Informatics, 2014, 18, 309-315.	3.9	55
100	Biomechanics of Musculoskeletal System and Its Biomimetic Implications: A Review. Journal of Bionic Engineering, 2014, 11, 159-175.	2.7	22
102	Recommendations for Standardizing Validation Procedures Assessing Physical Activity of Older Persons by Monitoring Body Postures and Movements. Sensors, 2014, 14, 1267-1277.	2.1	50
103	Monitoring human health behaviour in one's living environment: A technological review. Medical Engineering and Physics, 2014, 36, 147-168.	0.8	112
104	Monitoring physical activity and energy expenditure with smartphones. , 2014, , .		24
105	Accelerometry-Based Gait Analysis and Its Application to Parkinson's Disease Assessment—Part 1: Detection of Stride Event. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 613-622.	2.7	70
106	Interventions for physical activity promotion applied to the primary healthcare settings for people living in regions of low socioeconomic level: study protocol for a non-randomized controlled trial. Archives of Public Health, 2014, 72, 8.	1.0	7
107	Personal navigation using novel methods of human motion modeling. , 2014, , .		1
108	Design and implementation of a compressive infrared sampling for motion acquisition. Eurasip Journal on Advances in Signal Processing, 2014, 2014, .	1.0	4
109	Accuracy, sensitivity and robustness of five different methods for the estimation of gait temporal parameters using a single inertial sensor mounted on the lower trunk. Gait and Posture, 2014, 40, 487-492.	0.6	116
111	Quantified self and human movement: A review on the clinical impact of wearable sensing and feedback for gait analysis and intervention. Gait and Posture, 2014, 40, 11-19.	0.6	309
112	Wearable accelerometry-based technology capable of assessing functional activities in neurological populations in community settings: a systematic review. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 36.	2.4	58
113	Use of Integrated Technology in Team Sports. Journal of Strength and Conditioning Research, 2014, 28, 556-573.	1.0	77
114	Multi-dimensional time warping based on complexity invariance and its application in sports evaluation. , 2014, , .		2
115	Activity monitoring as a tool for person-centered care: Preliminary report. , 2014, , .		0
116	Wearable Weight Estimation System. Procedia Computer Science, 2015, 64, 146-152.	1.2	13
117	Gut microbiota manipulation with prebiotics in patients with non-alcoholic fatty liver disease: a randomized controlled trial protocol. BMC Gastroenterology, 2015, 15, 169.	0.8	59
118	BAN-based health telemonitoring system for in-home care. , 2015, , .		2

#	Article	IF	Citations
119	Easy-to-use, general, and accurate multi-Kinect calibration and its application to gait monitoring for fall prediction. , 2015, 2015, 4994-8.		13
120	Evaluation of a Smartphone-based Human Activity Recognition System in a Daily Living Environment. Journal of Visualized Experiments, 2015, , e53004.	0.2	4
121	Gait and Postural Sway Analysis, A Multi-Modal System. , 2015, , .		3
122	Short term Heart Rate Variability to predict blood pressure drops due to standing: a pilot study. BMC Medical Informatics and Decision Making, 2015, 15, S2.	1.5	14
123	Human Activity Registration Using Multisensor Data Fusion. Cybernetics and Information Technologies, 2015, 15, 99-108.	0.4	3
124	Improving activity recognition using a wearable barometric pressure sensor in mobility-impaired stroke patients. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 72.	2.4	64
125	Use of the Microsoft Kinect system to characterize balance ability during balance training. Clinical Interventions in Aging, 2015, 10, 1077.	1.3	29
126	A Comparative Study on the Suitability of Smartphones and IMU for Mobile, Unsupervised Energy Expenditure Calculi. Sensors, 2015, 15, 18270-18286.	2.1	7
127	Physical Human Activity Recognition Using Wearable Sensors. Sensors, 2015, 15, 31314-31338.	2.1	586
128	Motion Tracker: Camera-Based Monitoring of Bodily Movements Using Motion Silhouettes. PLoS ONE, 2015, 10, e0130293.	1.1	25
129	Physical Activities Monitoring Using Wearable Acceleration Sensors Attached to the Body. PLoS ONE, 2015, 10, e0130851.	1.1	80
130	Posture transition identification on PD patients through a SVM-based technique and a single waist-worn accelerometer. Neurocomputing, 2015, 164, 144-153.	3.5	24
131	mHealth Text Messaging for Physical Activity Promotion in College Students: A Formative Participatory Approach. American Journal of Health Behavior, 2015, 39, 395-408.	0.6	26
132	An Adaptive Rule-Based Approach to Classifying Activities of Daily Living. , 2015, , .		5
133	Kalman filtering for wearable fitness monitoring. , 2015, , .		1
134	An inkjet printed seismic sensor. , 2015, , .		6
135	Source separation for target enhancement of food intake acoustics from noisy recordings. , 2015, , .		6
136	Defining a valid day of accelerometer monitoring in adults with mental illness. Mental Health and Physical Activity, 2015, 9, 48-54.	0.9	2

#	Article	IF	Citations
137	Practical considerations in using accelerometers to assess physical activity, sedentary behavior, and sleep. Sleep Health, 2015, 1, 275-284.	1.3	96
138	Ranking risk exposures for situational surveillance of falls with sensors. Operations Research for Health Care, 2015, 7, 132-137.	0.8	3
139	Assessment of gait parameters during unconstrained straight-line walking using a single camera. , 2015, , .		1
140	Ubiquitous Computing and Ambient Intelligence. Sensing, Processing, and Using Environmental Information. Lecture Notes in Computer Science, 2015, , .	1.0	1
141	Quantitative analysis of fall risk using TUG test. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 426-437.	0.9	61
142	Validation of an activity monitor for children who are partly or completely wheelchair-dependent. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 11.	2.4	30
143	Comparative assessment of different methods for the estimation of gait temporal parameters using a single inertial sensor: application to elderly, post-stroke, Parkinson's disease and Huntington's disease subjects. Gait and Posture, 2015, 42, 310-316.	0.6	137
144	Context-Aware Data Processing to Enhance Quality of Measurements in Wireless Health Systems: An Application to MET Calculation of Exergaming Actions. IEEE Internet of Things Journal, 2015, 2, 84-93.	5.5	16
145	Gait, wrist, and sensors: Detecting freezing of gait in Parkinson's disease from wrist movement. , 2015, , .		10
146	Acceptability of wristband activity trackers among community dwelling older adults. Geriatric Nursing, 2015, 36, S21-S25.	0.9	90
147	Use of wearable technology for performance assessment: A validation study. Medical Engineering and Physics, 2015, 37, 698-704.	0.8	58
148	Data set for fall events and daily activities from inertial sensors. , 2015, , .		49
149	High sampling rate datalogger for the characterization of acceleration signals on the human body running. , 2015, , .		4
150	Movement Detection of Human Body Segments: Passive radio-frequency identification and machine-learning technologies. IEEE Antennas and Propagation Magazine, 2015, 57, 23-37.	1.2	57
151	An Emerging Era in the Management of Parkinson's Disease: Wearable Technologies and the Internet of Things. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 1873-1881.	3.9	257
152	Current Science on Consumer Use of Mobile Health for Cardiovascular Disease Prevention. Circulation, 2015, 132, 1157-1213.	1.6	446
153	Blood Pressure Drop Prediction by using HRV Measurements in Orthostatic Hypotension. Journal of Medical Systems, 2015, 39, 143.	2.2	11
154	Validity of a trunk-mounted accelerometer to assess peak accelerations during walking, jogging and running. European Journal of Sport Science, 2015, 15, 382-390.	1.4	67

#	ARTICLE	IF	CITATIONS
155	Automatic Prediction of Falls via Heart Rate Variability and Data Mining in Hypertensive Patients: The SHARE Project Experience. IFMBE Proceedings, 2015, , 42-45.	0.2	8
156	Recent Advances in Wearable Sensors for Health Monitoring. IEEE Sensors Journal, 2015, 15, 3119-3126.	2.4	250
157	Objective Evaluation of the Quality of Movement in Daily Life after Stroke. Frontiers in Bioengineering and Biotechnology, 2015, 3, 210.	2.0	43
158	A Review of Wearable Sensor Systems for Monitoring Body Movements of Neonates. Sensors, 2016, 16, 2134.	2.1	73
159	A Compressed Sensing-Based Wearable Sensor Network for Quantitative Assessment of Stroke Patients. Sensors, 2016, 16, 202.	2.1	21
160	Effectiveness of a Batteryless and Wireless Wearable Sensor System for Identifying Bed and Chair Exits in Healthy Older People. Sensors, 2016, 16, 546.	2.1	24
161	Physical Behavior in Older Persons during Daily Life: Insights from Instrumented Shoes. Sensors, 2016, 16, 1225.	2.1	42
162	Assessing Motor Fluctuations in Parkinson's Disease Patients Based on a Single Inertial Sensor. Sensors, 2016, 16, 2132.	2.1	34
163	The Rise of Consumer Health Wearables: Promises and Barriers. PLoS Medicine, 2016, 13, e1001953.	3.9	786
164	An Activity Index for Raw Accelerometry Data and Its Comparison with Other Activity Metrics. PLoS ONE, 2016, 11, e0160644.	1.1	92
165	Measurement of Physical Activity Using Accelerometers. , 2016, , 33-60.		25
166	Comparison of Non-Invasive Individual Monitoring of the Training and Health of Athletes with Commercially Available Wearable Technologies. Frontiers in Physiology, 2016, 7, 71.	1.3	110
167	Observing the State of Balance with a Single Upper-Body Sensor. Frontiers in Robotics and AI, 2016, 3, .	2.0	10
168	Classification of physical activities based on body-segments coordination. Computers in Biology and Medicine, 2016, 76, 134-142.	3.9	2
169	Clinical Interest of Ambulatory Assessment of Physical Activity and Walking Capacity in Peripheral Artery Disease. Scandinavian Journal of Medicine and Science in Sports, 2016, 26, 716-730.	1.3	10
170	Multi-person gait recognition system based on Kinect. , 2016, , .		1
171	WeAllWalk. , 2016, , .		14
172	An experimental analysis of active living technologies to review device accuracy. , 2016, , .		1

#	Article	IF	Citations
173	Interest and preferences for using advanced physical activity tracking devices: results of a national cross-sectional survey. BMJ Open, 2016, 6, e011243.	0.8	86
174	Quantitative evaluation of parameters affecting the accuracy of Microsoft Kinect in GAIT analysis. , 2016, , .		1
175	AutoHydrate: A wearable hydration monitoring system. , 2016, , .		9
176	Fitmirror. , 2016, , .		25
177	A wearable sensor system for medication adherence prediction. Artificial Intelligence in Medicine, 2016, 69, 43-52.	3.8	50
178	Acoustic cues from the floor: A new approach for fall classification. Expert Systems With Applications, 2016, 60, 51-61.	4.4	40
179	Evaluation of a smartphone human activity recognition application with able-bodied and stroke participants. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 5.	2.4	75
180	Synthesis and gas permeability of highly elastic poly(dimethylsiloxane)/graphene oxide composite elastomers using telechelic polymers. Polymer, 2016, 93, 53-60.	1.8	34
181	Poor agreement of objectively measured and self-reported physical activity in juvenile dermatomyositis and juvenile systemic lupus erythematosus. Clinical Rheumatology, 2016, 35, 1507-1514.	1.0	18
182	Skin-mountable stretch sensor for wearable health monitoring. Nanoscale, 2016, 8, 17295-17303.	2.8	97
183	Development of MATLAB Kinect Skeletal Tracking System (MKSTS) for gait analysis. , 2016, , .		7
184	Design and Implementation of Practical Step Detection Algorithm for Wrist-worn Devices. IEEE Sensors Journal, 2016, , 1-1.	2.4	23
185	Wireless Sensor Devices in Sports Performance. IEEE Potentials, 2016, 35, 40-42.	0.2	9
186	Contact-less indoor activity analysis using first-reflection echolocation. , 2016, , .		5
187	Application of a tri-axial accelerometry-based portable motion recorder for the quantitative assessment of hippotherapy in children and adolescents with cerebral palsy. Journal of Physical Therapy Science, 2016, 28, 2970-2974.	0.2	21
188	Exploiting accelerometers to estimate displacement. , 2016, , .		3
189	Robust Monitoring of Sport and Exercise. , 2016, , 407-435.		0
190	Use of Mobile Health Technology in the Prevention and Management of Diabetes Mellitus. Current Cardiology Reports, 2016, 18, 130.	1.3	49

#	ARTICLE	IF	CITATIONS
191	Video analysis validation of a real-time physical activity detection algorithm based on a single waist mounted tri-axial accelerometer sensor. , 2016, 2016, 4881-4884.		9
192	A statistical estimation framework for energy expenditure of physical activities from a wrist-worn accelerometer. , 2016, 2016, 2631-2635.		11
193	A triboelectric motion sensor in wearable body sensor network for human activity recognition. , 2016, 2016, 4889-4892.		11
194	Flexible carbon nanotube nanocomposite sensor for multiple physiological parameter monitoring. Sensors and Actuators A: Physical, 2016, 251, 148-155.	2.0	90
195	Relationship between the Body Sway of Fast Walking and Muscle Strength in Elderly People. Japanese Journal of Health Promotion and Physical Therapy, 2016, 5, 161-165.	0.1	0
196	Implementation of the Human Action State Recognition Using Smartphone. , 2016, , .		0
197	A spherical-plot solution to linking acceleration metrics with animal performance, state, behaviour and lifestyle. Movement Ecology, 2016, 4, 22.	1.3	17
198	On motion-sensor behavior analysis for human-activity recognition via smartphones. , 2016, , .		21
199	Beyond Cognitive and Affective Issues: Designing Smart Learning Environments for Psychomotor Personalized Learning. , 2016, , 1-24.		3
200	Benchmark problem for human activity identification using floor vibrations. Expert Systems With Applications, 2016, 62, 263-272.	4.4	21
201	Wearable healthcare electronics for 24-7 monitoring with focus on user comfort. , 2016, , .		2
202	Smart and wearable wireless sensors: Scenario analysis and communication issues. , 2016, , .		2
203	Effect of visual acuity in older females on energy expenditure during obstacle navigation. European Geriatric Medicine, 2016, 7, 105-110.	1.2	1
204	A novel accelerometry-based algorithm for the detection of step durations over short episodes of gait in healthy elderly. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 38.	2.4	33
205	A survey of sensor devices: use in sports biomechanics. Sports Biomechanics, 2016, 15, 450-461.	0.8	12
206	Comparative Approaches to Understanding the Relation Between Aging and Physical Function. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2016, 71, 1243-1253.	1.7	60
207	Fabrication and characterization of a microaccelerometer based on resonant-tunneling diodes. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2016, 15, 015001.	1.0	2
208	The role of wrist-mounted inertial sensors in detecting gait freeze episodes in Parkinson's disease. Pervasive and Mobile Computing, 2016, 33, 1-16.	2.1	48

#	Article	IF	Citations
209	Step Detection and Parameterization for Gait Assessment Using a Single Waist-Worn Accelerometer. IEEE Transactions on Biomedical Engineering, 2016, 63, 933-942.	2.5	36
210	Low Cost Inertial Measurement Unit for Motion Capture in Biomedical Applications. IFIP Advances in Information and Communication Technology, 2016, , 151-158.	0.5	2
211	Body-Worn Sensors in Parkinson's Disease: Evaluating Their Acceptability to Patients. Telemedicine Journal and E-Health, 2016, 22, 63-69.	1.6	69
212	An Evaluation of Commercial Pedometers for Monitoring Slow Walking Speed Populations. Telemedicine Journal and E-Health, 2016, 22, 441-449.	1.6	56
213	Dopaminergic-induced dyskinesia assessment based on a single belt-worn accelerometer. Artificial Intelligence in Medicine, 2016, 67, 47-56.	3.8	45
214	A remote quantitative Fugl-Meyer assessment framework for stroke patients based on wearable sensor networks. Computer Methods and Programs in Biomedicine, 2016, 128, 100-110.	2.6	97
215	Validity of a small low-cost triaxial accelerometer with integrated logger for uncomplicated measurements of postures and movements of head, upper back and upper arms. Applied Ergonomics, 2016, 55, 108-116.	1.7	36
216	Using feedback through digital technology to disrupt and change habitual behavior: A critical review of current literature. Computers in Human Behavior, 2016, 57, 61-74.	5.1	141
217	Evaluation of four sensor locations for physical activity assessment. Applied Ergonomics, 2016, 53, 103-109.	1.7	23
218	Living Labs: overview of ecological approaches for health promotion and rehabilitation. Disability and Rehabilitation, 2016, 38, 613-619.	0.9	23
219	Upper limb joint angle measurement in occupational health. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 159-170.	0.9	35
220	A Low-Cost Accelerometer Developed by Inkjet Printing Technology. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 1242-1248.	2.4	39
221	Body Area Sensing Networks for Remote Health Monitoring. , 2016, , 85-136.		2
223	The effects of progressive resistance training on daily physical activity in young people with cerebral palsy: a randomised controlled trial. Disability and Rehabilitation, 2016, 38, 620-626.	0.9	20
224	Classification of physical activities using wearable sensors. Intelligent Automation and Soft Computing, 2017, 23, 21-30.	1.6	9
225	Physical Activity Recognition From Smartphone Accelerometer Data for User Context Awareness Sensing. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 3142-3149.	5.9	126
226	Dynamic Computation Offloading for Low-Power Wearable Health Monitoring Systems. IEEE Transactions on Biomedical Engineering, 2017, 64, 621-628.	2.5	43
227	Validation of Energy Expenditure Prediction Models Using Real-Time Shoe-Based Motion Detectors. IEEE Transactions on Biomedical Engineering, 2017, 64, 2152-2162.	2.5	5

#	Article	IF	Citations
228	How to Assess Physical Activity in Clinical Practice and for Scholarly Work. Journal for Nurse Practitioners, 2017, 13, 14-20.e2.	0.4	4
229	Single-Camera-Based Method for Step Length Symmetry Measurement in Unconstrained Elderly Home Monitoring. IEEE Transactions on Biomedical Engineering, 2017, 64, 2618-2627.	2.5	13
230	Training Load Monitoring in Team Sports: A Novel Framework Separating Physiological and Biomechanical Load-Adaptation Pathways. Sports Medicine, 2017, 47, 2135-2142.	3.1	289
231	Comparing accelerometer, pedometer and a questionnaire for measuring physical activity in bronchiectasis: a validity and feasibility study. Respiratory Research, 2017, 18, 16.	1.4	48
232	Ergonomic analysis of construction worker's body postures using wearable mobile sensors. Applied Ergonomics, 2017, 62, 107-117.	1.7	152
233	Performance Analysis of Smartphone-Sensor Behavior for Human Activity Recognition. IEEE Access, 2017, 5, 3095-3110.	2.6	219
234	A Smartwatch Step Counter for Slow and Intermittent Ambulation. IEEE Access, 2017, 5, 13028-13037.	2.6	30
235	Principal component analysis for ataxic gait using a triaxial accelerometer. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 37.	2.4	20
236	Reha@Home - A Vision Based Markerless GAIT Analysis System for Rehabilitation at Home. , 2017, , .		3
237	Rapid Fabrication of Flexible and Stretchable Strain Sensor by Chitosan–Based Water Ink for Plants Growth Monitoring. Advanced Materials Technologies, 2017, 2, 1700021.	3.0	65
238	Multiple joint-variable domains recognition of human motion. , 2017, , .		29
239	Wireless Mobile Communication and Healthcare. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2017, , .	0.2	5
240	Continuous detection of human fall using multimodal features from Kinect sensors in scalable environment. Computer Methods and Programs in Biomedicine, 2017, 146, 151-165.	2.6	41
241	Estimating bradykinesia severity in Parkinson's disease by analysing gait through a waist-worn sensor. Computers in Biology and Medicine, 2017, 84, 114-123.	3.9	85
242	School-time physical activity among Arab elementary school children in Qatar. BMC Pediatrics, 2017, 17, 76.	0.7	19
243	Visualizing stressful aspects of repetitive motion tasks and opportunities for ergonomic improvements using computer vision. Applied Ergonomics, 2017, 65, 461-472.	1.7	17
244	Interactive wearable systems for upper body rehabilitation: a systematic review. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 20.	2.4	245
245	A piezo-resistive graphene strain sensor with a hollow cylindrical geometry. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2017, 219, 20-27.	1.7	36

#	ARTICLE	IF	CITATIONS
246	Accelerometer thresholds: Accounting for body mass reduces discrepancies between measures of physical activity for individuals with overweight and obesity. Applied Physiology, Nutrition and Metabolism, 2017, 42, 53-58.	0.9	3
247	Comparison of tri-axial accelerometers step-count accuracy in slow walking conditions. Gait and Posture, 2017, 53, 11-16.	0.6	37
248	Wearable technology for spine movement assessment: A systematic review. Journal of Biomechanics, 2017, 64, 186-197.	0.9	91
249	Analysis of Movement Acceleration of Down's Syndrome Teenagers Playing Computer Games. Games for Health Journal, 2017, 6, 358-364.	1.1	4
250	Sit to stand activity during stroke rehabilitation. Topics in Stroke Rehabilitation, 2017, 24, 562-566.	1.0	16
251	Where to wear it. , 2017, , .		137
252	Locomotion detection and cadence estimation using 3D wrist accelerometer: an in-field validation. Gait and Posture, 2017, 57, 186-187.	0.6	4
253	Machine Learning Models for Multidimensional Clinical Data. Scalable Computing and Communications, 2017, , 177-216.	0.5	9
254	Wearable step counting using a force myography-based ankle strap. Journal of Rehabilitation and Assistive Technologies Engineering, 2017, 4, 205566831774630.	0.6	15
255	Walking Phrases. , 2017, , .		1
256	Tracking anemia ubiquitously, frequently, and predictively. , 2017, , .		2
257	A wearable device for sport performance analysis and monitoring. , 2017, , .		14
258	Validity and reliability of a tool for accelerometric assessment of static balance in women. European Journal of Physiotherapy, 2017, 19, 243-248.	0.7	14
259	Review of current methods, opportunities, and challenges for in-situ monitoring to support occupant modelling in office spaces. Journal of Building Performance Simulation, 2017, 10, 444-470.	1.0	57
260	Comparison of two accelerometers for measuring physical activity and sedentary behaviour. BMJ Open Sport and Exercise Medicine, 2017, 3, e000227.	1.4	35
261	Dual System for Enhancing Cognitive Abilities of Children with ADHD Using Leap Motion and eye-Tracking Technologies. Journal of Medical Systems, 2017, 41, 111.	2.2	23
262	The development and initial psychometric evaluation of a measure assessing adherence to prescribed exercise: the Exercise Adherence Rating Scale (EARS). Physiotherapy, 2017, 103, 180-185.	0.2	123
263	Improved kinect-based spatiotemporal and kinematic treadmill gait assessment. Gait and Posture, 2017, 51, 77-83.	0.6	111

#	Article	IF	Citations
264	A Review of Emerging Analytical Techniques for Objective Physical Activity Measurement in Humans. Sports Medicine, 2017, 47, 439-447.	3.1	41
265	Smartwatch Based Activity Recognition Using Active Learning. , 2017, , .		47
266	Medical activity monitoring for elderly people using wearable wrist device. , 2017, , .		1
267	Suitability of Data Representation Domains in Expressing Human Motion Radar Signals. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 2370-2374.	1.4	16
268	A wearable and non-wearable approach for gesture recognition â€" Initial results. , 2017, , .		3
269	Gait analysis based on an inertial measurement unit sensor: Validation of spatiotemporal parameters calculation in healthy young and older adults. , 2017, , .		1
270	An easy-to-use wearable step counting device for slow walking using ankle force myography. , 2017, , .		3
271	Biomarkers for depression: recent insights, current challenges and future prospects. Neuropsychiatric Disease and Treatment, 2017, Volume 13, 1245-1262.	1.0	242
272	A Review of Activity Trackers for Senior Citizens: Research Perspectives, Commercial Landscape and the Role of the Insurance Industry. Sensors, 2017, 17, 1277.	2.1	99
273	A Physical Activity Reference Data-Set Recorded from Older Adults Using Body-Worn Inertial Sensors and Video Technologyâ€"The ADAPT Study Data-Set. Sensors, 2017, 17, 559.	2.1	28
274	A Waist-Worn Inertial Measurement Unit for Long-Term Monitoring of Parkinsonâ€™s Disease Patients. Sensors, 2017, 17, 827.	2.1	34
275	Research on Lower Limb Motion Recognition Based on Fusion of sEMG and Accelerometer Signals. Symmetry, 2017, 9, 147.	1.1	37
276	A Review of Wearable Technologies for Elderly Care that Can Accurately Track Indoor Position, Recognize Physical Activities and Monitor Vital Signs in Real Time. Sensors, 2017, 17, 341.	2.1	231
277	How Sensors Might Help Define the External Exposome. International Journal of Environmental Research and Public Health, 2017, 14, 434.	1.2	73
278	Sedentary and Physical Activity Patterns in Adults with Intellectual Disability. International Journal of Environmental Research and Public Health, 2017, 14, 1027.	1.2	45
279	Quantitative Analysis of Motor Status in Parkinsonâ€™s Disease Using Wearable Devices: From Methodological Considerations to Problems in Clinical Applications. Parkinson's Disease, 2017, 2017, 1-9.	0.6	28
280	Medical activity monitoring for elderly people using wearable wrist device. , 2017, , .		0
281	A Combined One-Class SVM and Template-Matching Approach for User-Aided Human Fall Detection by Means of Floor Acoustic Features. Computational Intelligence and Neuroscience, 2017, 2017, 1-13.	1.1	28

#	Article	IF	Citations
282	Mechanisms and Materials of Flexible and Stretchable Skin Sensors. Micromachines, 2017, 8, 69.	1.4	46
283	The relationship between movement speed and duration during soccer matches. PLoS ONE, 2017, 12, e0181781.	1.1	7
284	Activity recognition with wearable sensors on loose clothing. PLoS ONE, 2017, 12, e0184642.	1.1	17
285	Assessing and enhancing the utility of low-cost activity and location sensors for exposure studies. Environmental Monitoring and Assessment, 2018, 190, 155.	1.3	28
286	A smart capacitive measurement system for fall detection. Journal of Electrostatics, 2018, 92, 45-53.	1.0	2
287	DrinkWatch. , 2018, , .		19
288	Wearable Multichannel Photoplethysmography Framework for Heart Rate Monitoring During Intensive Exercise. IEEE Sensors Journal, 2018, 18, 2983-2993.	2.4	48
290	Performance evaluation of implicit smartphones authentication via sensor-behavior analysis. Information Sciences, 2018, 430-431, 538-553.	4.0	55
291	Sedentary behavior and physical activity of young adult university students. Research in Nursing and Health, 2018, 41, 30-38.	0.8	78
292	Calibration of raw accelerometer data to measure physical activity: A systematic review. Gait and Posture, 2018, 61, 98-110.	0.6	68
293	Human metabolic rate and thermal comfort in buildings: The problem and challenge. Building and Environment, 2018, 131, 44-52.	3.0	133
294	Autonomous on-animal sensors in sheep research: A systematic review. Computers and Electronics in Agriculture, 2018, 150, 245-256.	3.7	48
295	The Wearing Comfort and Acceptability of Ambulatory Physical Activity Monitoring Devices in Soldiers. IISE Transactions on Occupational Ergonomics and Human Factors, 2018, 6, 1-10.	0.5	17
296	Validity of the Fitbit One for Measuring Activity in Community-Dwelling Stroke Survivors. Physiotherapy Canada Physiotherapie Canada, 2018, 70, 81-89.	0.3	33
297	Non-Contact Human Motion Recognition Based on UWB Radar. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 306-315.	2.7	41
298	Electrical and Physical Sensors for Biomedical Implants. , 2018, , 99-195.		7
299	The Mouse as a Model Organism for Assessing Anesthetic Sensitivity. Methods in Enzymology, 2018, 602, 211-228.	0.4	21
300	A low budget multifunctional wearable device for motion and falls detection. , 2018, , .		2

#	Article	IF	Citations
301	TriboMotion: A Self-Powered Triboelectric Motion Sensor in Wearable Internet of Things for Human Activity Recognition and Energy Harvesting. IEEE Internet of Things Journal, 2018, 5, 4441-4453.	5.5	40
302	WeAllWalk. ACM Transactions on Accessible Computing, 2018, 11, 1-28.	1.9	18
303	The Influence of Objectively Measured Physical Activity During Pregnancy on Maternal and Birth Outcomes in Urban Black South African Women. Maternal and Child Health Journal, 2018, 22, 1190-1199.	0.7	19
304	Daily Patterns of Accelerometer Activity Predict Changes in Sleep, Cognition, and Mortality in Older Men. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2018, 73, 682-687.	1.7	37
305	Internet of Things based activity surveillance of defence personnel. Journal of Ambient Intelligence and Humanized Computing, 2018, 9, 2061-2076.	3.3	20
306	The Validity of Consumer-Level Activity Monitors in Healthy Older Adults in Free-Living Conditions. Journal of Aging and Physical Activity, 2018, 26, 128-135.	0.5	42
307	Wearable sensor devices for early detection of Alzheimer disease using dynamic time warping algorithm. Cluster Computing, 2018, 21, 681-690.	3.5	188
308	Assessment of Homomorphic Analysis for Human Activity Recognition From Acceleration Signals. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 1001-1010.	3.9	29
309	HARKE: Human Activity Recognition from Kinetic Energy Harvesting Data in Wearable Devices. IEEE Transactions on Mobile Computing, 2018, 17, 1353-1368.	3.9	111
310	Relationship Between Muscle Strength Asymmetry and Body Sway in Older Adults. Journal of Aging and Physical Activity, 2018, 26, 457-461.	0.5	13
311	A Two-stage Model for Wearable Device Data. Biometrics, 2018, 74, 744-752.	0.8	14
312	Fall Detection Using Deep Learning in Range-Doppler Radars. IEEE Transactions on Aerospace and Electronic Systems, 2018, 54, 180-189.	2.6	178
313	Feature reduction for classification of daily activities through kinematic data from smartphones. Smart Health, 2018, 5-6, 40-50.	2.0	1
314	Graph-based representation of behavior in detection and prediction of daily living activities. Computers in Biology and Medicine, 2018, 95, 261-270.	3.9	18
315	A Survey on the Affordances of â€œHearablesâ€. Inventions, 2018, 3, 48.	1.3	16
316	IoT-enabled fall verification of elderly and impaired people in smart cities. , 2018, , .		3
317	Analysis and Development of an Automatic eCal1 Algorithm for Wearable Devices. , 2018, , .		1
318	Development of Sensorised Resistance Band for Objective Exercise Measurement: Activities Classification Trial. , 2018, 2018, 3942-3945.		7

#	Article	IF	Citations
319	On-Body Sensor Positions Hierarchical Classification. Sensors, 2018, 18, 3612.	2.1	16
320	Multi-Functional Soft Strain Sensors for Wearable Physiological Monitoring. Sensors, 2018, 18, 3822.	2.1	42
321	Activity Monitoring with a Wrist-Worn, Accelerometer-Based Device. Micromachines, 2018, 9, 450.	1.4	26
322	Off-Training Levels of Physical Activity and Sedentary Behavior in Young Athletes: Preliminary Results during a Typical Week. Sports, 2018, 6, 141.	0.7	15
323	Gait Recognition Based on Tensor Analysis of Acceleration Data from Wearable Sensors. , 2018, , .		1
324	Design and validation of a simple automated optical step counting method for treadmill walking. Journal of Medical Engineering and Technology, 2018, 42, 468-474.	0.8	0
325	Human Activity Detection via WiFi Signals Using Deep Neural Networks. , 2018, , .		2
326	Development of a Multi-Purpose Easy-to-Use Set of Tools for Home Based Rehabilitation. , 2018, , .		2
327	Monitoring Motor Symptoms During Activities of Daily Living in Individuals With Parkinson's Disease. Frontiers in Neurology, 2018, 9, 1036.	1.1	70
328	Occupational Risk Prevention through Smartwatches: Precision and Uncertainty Effects of the Built-In Accelerometer. Sensors, 2018, 18, 3805.	2.1	16
329	Analysis of a Public Repository for the Study of Automatic Fall Detection Algorithms. , 2018, , .		1
330	Glucoregulatory and Cardiometabolic Profiles of Almond vs. Cracker Snacking for 8 Weeks in Young Adults: A Randomized Controlled Trial. Nutrients, 2018, 10, 960.	1.7	34
331	Using Accelerometric and Gyroscopic Data to Improve Blood Pressure Prediction from Pulse Transit Time Using Recurrent Neural Network. , 2018, , .		6
332	Application and Validation of Activity Monitors' Epoch Lengths and Placement Sites for Physical Activity Assessment in Exergaming. Journal of Clinical Medicine, 2018, 7, 268.	1.0	29
333	Design of Instrumented Shoes for Gait Characterization: A Usability Study With Healthy and Post-stroke Hemiplegic Individuals. Frontiers in Neuroscience, 2018, 12, 459.	1.4	20
334	A Novel Method to Characterize Walking and Running Energy Expenditure. Journal for the Measurement of Physical Behaviour, 2018, 1, 100-107.	0.5	2
335	Easy Return. , 2018, , .		21
336	Automated ergonomic risk monitoring using body-mounted sensors and machine learning. Advanced Engineering Informatics, 2018, 38, 514-526.	4.0	76

#	Article	IF	Citations
337	Validation of a Lower Back â€œWearableâ€•Based Sit-to-Stand and Stand-to-Sit Algorithm for Patients With Parkinson's Disease and Older Adults in a Home-Like Environment. Frontiers in Neurology, 2018, 9, 652.	1.1	28
338	Objective measurement of physical activity outcomes in lifestyle interventions among adults: A systematic review. Preventive Medicine Reports, 2018, 11, 74-80.	0.8	94
339	Free-living and laboratory gait characteristics in patients with multiple sclerosis. PLoS ONE, 2018, 13, e0196463.	1.1	79
340	School Travel Plans. , 2018, , 205-216.		3
341	Systems and WBANs for Controlling Obesity. Journal of Healthcare Engineering, 2018, 2018, 1-21.	1.1	91
342	Silver Nanowire-Based Flexible Transparent Composite Film for Curvature Measurements. ACS Applied Nano Materials, 2018, 1, 3859-3866.	2.4	12
343	Efficient Bluetooth Low Energy Operation for Low Duty Cycle Applications. , 2018, , .		6
344	Accuracy of Objective Physical Activity Monitors in Measuring Steps in Older Adults. Gerontology and Geriatric Medicine, 2018, 4, 233372141878112.	0.8	30
345	Quantitative Contact-Less Estimation of Energy Expenditure from Video and 3D Imagery. Sensors, 2018, 18, 2435.	2.1	5
346	Wearable Technologies and Force Myography for Healthcare. , 2018, , 135-152.		7
347	Narrative and active video game in separate and additive effects of physical activity and cognitive function among young adults. Scientific Reports, 2018, 8, 11020.	1.6	21
348	Wearable Sensors for Upper Limb Monitoring. , 2018, , 113-134.		5
349	A Combined Motion-Audio School Bullying Detection Algorithm. International Journal of Pattern Recognition and Artificial Intelligence, 2018, 32, 1850046.	0.7	15
350	Psychometric properties of the Zephyr bioharness device: a systematic review. BMC Sports Science, Medicine and Rehabilitation, 2018, 10, 6.	0.7	78
351	Integrated Flexible Conversion Circuit between a Flexible Photovoltaic and Supercapacitors for Powering Wearable Sensors. Journal of the Electrochemical Society, 2018, 165, B3122-B3129.	1.3	23
352	A systematic literature review of reviews on techniques for physical activity measurement in adults: a DEDIPAC study. International Journal of Behavioral Nutrition and Physical Activity, 2018, 15, 15.	2.0	230
353	Integrated Telehealth and Telecare for Monitoring Frail Elderly with Chronic Disease. Telemedicine Journal and E-Health, 2018, 24, 940-957.	1.6	54
354	A fluidics-based impact sensor. PLoS ONE, 2018, 13, e0195741.	1.1	0

#	ARTICLE	IF	CITATIONS
355	A new method to study human metabolic rate changes and thermal comfort in physical exercise by CO_2 measurement in an airtight chamber. Energy and Buildings, 2018, 177, 402-412.	3.1	53
356	Physical activity characterization: does one site fit all?. Physiological Measurement, 2018, 39, 09TR02.	1.2	18
357	A Multisensory Approach for Remote Health Monitoring of Older People. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2018, 2, 102-108.	2.3	49
358	Defining adherence to therapeutic exercise for musculoskeletal pain: a systematic review. British Journal of Sports Medicine, 2020, 54, bjsports-2017-098742.	3.1	36
359	A novel chaotic map based compressive classification scheme for human activity recognition using a tri-axial accelerometer. Multimedia Tools and Applications, 2018, 77, 31261-31280.	2.6	24
360	Biomarkers for Depression: Recent Insights, Current Challenges and Future Prospects. Focus (American Psychiatric Publishing), 2018, 16, 194-209.	0.4	19
361	PAME: Physical Activity Monitoring for the Elderly. , 2018, , .		1
362	Validity of wearable activity monitors for tracking steps and estimating energy expenditure during a graded maximal treadmill test. Journal of Sports Sciences, 2019, 37, 42-49.	1.0	22
364	Quantifying and Processing Biomedical and Behavioral Signals. Smart Innovation, Systems and Technologies, 2019, , .	0.5	1
365	Gait symmetry measurement method based on a single camera. International Journal of Machine Learning and Cybernetics, 2019, 10, 1399-1406.	2.3	1
366	Wearable oxygen uptake and energy expenditure monitors. Physiological Measurement, 2019, 40, 08TR01.	1.2	5
367	Daily Physical Activity Classification using a Head-mounted device. , 2019, , .		1
368	Out-of-Hospital Body Movement Data Collection Using E-Skin Sensors. , 2019, , .		0
369	Learning the Orientation of a Loosely-Fixed Wearable IMU Relative to the Body Improves the Recognition Rate of Human Postures and Activities. Sensors, 2019, 19, 2845.	2.1	6
370	Quantifying normal and parkinsonian gait features from home movies: Practical application of a deep learning–based 2D pose estimator. PLoS ONE, 2019, 14, e0223549.	1.1	52
371	Measuring the Psychobiological Correlates of Daily Experience in Adolescents. Journal of Research on Adolescence, 2019, 29, 595-612.	1.9	6
372	Inter-leg Distance Measurement as a Tool for Accurate Step Counting in Patients with Multiple Sclerosis. , 2019, 2019, 6413-6417.		3
373	Estimation of Displacement for Internet of Things Applications with Kalman Filter. Electronics (Switzerland), 2019, 8, 985.	1.8	5

#	Article	IF	Citations
374	Highly Compressible and Sensitive Pressure Sensor under Large Strain Based on 3D Porous Reduced Graphene Oxide Fiber Fabrics in Wide Compression Strains. ACS Applied Materials & Interfaces, 2019, 11, 37051-37059.	4.0	74
375	Wearable Sensing Technology Applications in Construction Safety and Health. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	2.0	142
376	Bio-Integrated Wearable Systems: A Comprehensive Review. Chemical Reviews, 2019, 119, 5461-5533.	23.0	822
377	Gait oscillation analysis during gait and stair-stepping in elder patients with knee osteoarthritis. Journal of Orthopaedic Surgery and Research, 2019, 14, 21.	0.9	6
378	Physical Activity Levels of Children With Down Syndrome. Pediatric Physical Therapy, 2019, 31, 33-41.	0.3	31
379	Automatic real-time gait event detection in children using deep neural networks. PLoS ONE, 2019, 14, e0211466.	1.1	66
380	Wearable Technologies in Sportswear. , 2019, , 123-160.		11
381	Driving and detection system of vibrating piezoelectric gyroscope at atmospheric pressure for multi-axial inertia sensor. Microsystem Technologies, 2019, 25, 4173-4183.	1.2	2
382	Sensors for monitoring workplace health. , 2019, , 537-553.		1
383	Evaluation of Gait Phase Detection Delay Compensation Strategies to Control a Gyroscope-Controlled Functional Electrical Stimulation System During Walking. Sensors, 2019, 19, 2471.	2.1	18
384	Personalized location recommendation using mobile phone usage information. Applied Intelligence, 2019, 49, 3694-3707.	3.3	17
385	Habitual Physical Activity in OlderÂAdultsÂUndergoing TAVR. JACC: Cardiovascular Interventions, 2019, 12, 781-789.	1.1	29
386	Modular interface and experimental setup for in-vacuum operation of microfluidic devices. Review of Scientific Instruments, 2019, 90, 045006.	0.6	5
387	Privacy implications of accelerometer data. , 2019, , .		40
388	Accelerometer activity tracking in horses and the effect of pasture management on time budget. Equine Veterinary Journal, 2019, 51, 840-845.	0.9	21
389	Flexible Molybdenum Disulfide (MoS$_2$) Atomic Layers for Wearable Electronics and Optoelectronics. ACS Applied Materials & Interfaces, 2019, 11, 11061-11105.	4.0	277
390	Carbon Nanotubes-Polydimethylsiloxane Sensor. Smart Sensors, Measurement and Instrumentation, 2019, , 91-114.	0.4	0
391	Design and methodology of the impact of HemoDiaFIlTration on physical activity and self-reported outcomes: a randomized controlled trial (HDFIT trial) in Brazil. BMC Nephrology, 2019, 20, 98.	0.8	9

#	Article	IF	Citations
393	Implantable and wearable sensors. , 2019, , 489-545.		6
394	In-home physical frailty monitoring: relevance with respect to clinical tests. BMC Geriatrics, 2019, 19, 34.	1.1	16
395	Objective evaluation of physical activity pattern using smart devices. Scientific Reports, 2019, 9, 2006.	1.6	8
396	Ionic liquidâ€"activated wearable electronics. Materials Today Physics, 2019, 8, 78-85.	2.9	47
397	IT and green practices as enablers of service-oriented capabilities and patient-focused care in healthcare industry. International Journal of Innovation and Sustainable Development, 2019, 13, 220.	0.3	2
398	A Neuro-Prosthetic Device for Substituting Sensory Functions during Stance Phase of the Gait. Applied Sciences (Switzerland), 2019, 9, 5144.	1.3	4
399	Role of Wearable Accelerometer Devices in Delirium Studies. , 2019, 1, e0027.		12
400	Design of Motor Control Electric Push-Scooter using Accelerometer as Jerk Sensor. , 2019, , .		2
401	Biofeedback Methodology: a Narrative Review. , 2019, , .		10
402	Altering body perception and emotion in physically inactive people through movement sonification. , 2019, , .		10
403	Contraction Artifacts on Biceps Tissue Bioimpedance Collected using Stepped-Sine Excitations. , 2019, , .		7
404	Detection of Tennis Activities with Wearable Sensors. Sensors, 2019, 19, 5004.	2.1	22
405	Accelerometry-Based External Load Indicators in Sport: Too Many Options, Same Practical Outcome?. International Journal of Environmental Research and Public Health, 2019, 16, 5101.	1.2	33
406	Cane with Millimeter Wave Radar for Base of Support Measurement. , 2019, , .		2
407	Commercial Postural Devices: A Review. Sensors, 2019, 19, 5128.	2.1	31
408	Wearable technology in stroke rehabilitation: towards improved diagnosis and treatment of upper-limb motor impairment. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 142.	2.4	145
409	Walking-speed estimation using a single inertial measurement unit for the older adults. PLoS ONE, 2019, 14, e0227075.	1.1	28
410	Sleep assessment devices: types, market analysis, and a critical view on accuracy and validation. Expert Review of Medical Devices, 2019, 16, 1041-1052.	1.4	27

#	ARTICLE	IF	CITATIONS
411	Relation between the amount of daily activity and gait quality in transfemoral amputees. International Journal of Rehabilitation Research, 2019, 42, 139-144.	0.7	3
412	Movement of head and center of mass: Joint assessment. AIP Conference Proceedings, 2019, , .	0.3	2
413	Classification of Swing Motion of Tennis using a Recurrent-based Neural Network. , 2019, , .		3
414	Can activity monitors predict outcomes in patients with heart failure? A systematic review. European Heart Journal Quality of Care & Clinical Outcomes, 2019, 5, 11-21.	1.8	21
415	A wearable solution for accurate step detection based on the direct measurement of the inter-foot distance. Journal of Biomechanics, 2019, 84, 274-277.	0.9	22
416	Using Smart Socks to Detect Step-count at Slow Walking Speeds in Healthy Adults. International Journal of Sports Medicine, 2019, 40, 133-138.	0.8	6
417	Human health monitoring using wearable sensor. Sensor Review, 2019, 39, 364-376.	1.0	17
418	Assessment of Upper Extremity Function. Journal of Hand Surgery, 2019, 44, 600-605.	0.7	2
419	Internet of things, smart sensors, and pervasive systems: Enabling connected and pervasive healthcare. , 2019, , 1-58.		33
420	A low-cost quantitative continuous measurement of movements in the extremities of people with Parkinson's disease. MethodsX, 2019, 6, 169-189.	0.7	20
421	Emerging NUI-Based Methods for User Authentication: A New Taxonomy and Survey. IEEE Transactions on Biometrics, Behavior, and Identity Science, 2019, 1, 5-31.	3.8	15
422	On the determination of accelerometer positions within host devices. American Journal of Physics, 2019, 87, 130-135.	0.3	6
423	Smart technologies toward sleep monitoring at home. Biomedical Engineering Letters, 2019, 9, 73-85.	2.1	54
424	Quantifying postoperative mobilisation following oesophagectomy. Physiotherapy, 2019, 105, 126-133.	0.2	14
425	A Triboelectric Nanogeneratorâ€Based Smart Insole for Multifunctional Gait Monitoring. Advanced Materials Technologies, 2019, 4, 1800360.	3.0	181
426	Automated Action Recognition Using an Accelerometer-Embedded Wristband-Type Activity Tracker. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	2.0	89
427	Inertial sensors versus standard systems in gait analysis: a systematic review and meta-analysis. European Journal of Physical and Rehabilitation Medicine, 2019, 55, 265-280.	1.1	56
428	Developing a framework for promoting physical activity in a Boccia game scenario. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2019, 7, 632-642.	1.3	1

#	Article	IF	Citations
429	A self-powered 3D activity inertial sensor using hybrid sensing mechanisms. Nano Energy, 2019, 56, 651-661.	8.2	50
430	Machine and deep learning for sport-specific movement recognition: a systematic review of model development and performance. Journal of Sports Sciences, 2019, 37, 568-600.	1.0	170
431	Caution using data from triaxial accelerometers housed in player tracking units during running. Journal of Sports Sciences, 2019, 37, 810-818.	1.0	34
432	Instruments for Health Surveys in Children and Adolescents. Springer Series on Epidemiology and Public Health, 2019, , .	0.5	7
433	Accelerometry-Based Physical Activity Assessment for Children and Adolescents. Springer Series on Epidemiology and Public Health, 2019, , 135-173.	0.5	3
434	Wearable Devices for Precision Medicine and Health State Monitoring. IEEE Transactions on Biomedical Engineering, 2019, 66, 1242-1258.	2.5	102
435	The validity of the commercially-available, low-cost, wrist-worn Movband accelerometer during treadmill exercise and free-living physical activity. Journal of Sports Sciences, 2019, 37, 735-740.	1.0	16
436	Data-driven combinatorial optimization for sensor-based assessment of near falls. Annals of Operations Research, 2019, 276, 137-153.	2.6	4
437	Effects of a ballet-based dance intervention on gait variability and balance confidence of people with Parkinson’s. Arts and Health, 2019, 11, 133-146.	0.6	12
438	Wearable technologies for hand joints monitoring for rehabilitation: A survey. Microelectronics Journal, 2019, 88, 173-183.	1.1	66
439	Using Commercial Physical Activity Trackers for Health Promotion Research: Four Case Studies. Health Promotion Practice, 2019, 20, 381-389.	0.9	9
440	A typical IoT architecture-based regular monitoring of arthritis disease using time wrapping algorithm. International Journal of Computers and Applications, 2020, 42, 222-232.	0.8	42
441	Posture transition analysis with barometers: contribution to accelerometer-based algorithms. Neural Computing and Applications, 2020, 32, 335-349.	3.2	5
442	SIT LESS: A prototype home-based system for monitoring older adults sedentary behavior. Assistive Technology, 2020, 32, 79-91.	1.2	4
443	Moderate to Vigorous Physical Activity During Physical Education, Recess, and Class Time Among Elementary School Children in Qatar. Journal of Teaching in Physical Education, 2020, 39, 1-8.	0.9	10
444	Artificially Intelligent Assistant for Basketball Coaching. Lecture Notes in Networks and Systems, 2020, , 417-427.	0.5	0
445	Neural network-supported patient-adaptive fall prevention system. Neural Computing and Applications, 2020, 32, 9369-9382.	3.2	6
446	Improvements in Objectively Measured Activity Behaviors Do Not Correlate With Improvements in Patient-Reported Outcome Measures Following Total Knee Arthroplasty. Journal of Arthroplasty, 2020, 35, 712-719.e4.	1.5	16

#	Article	IF	Citations
447	A Step in the Right Direction: Body Location Determines Activity Tracking Device Accuracy in Total Knee and Hip Arthroplasty Patients. Journal of the American Academy of Orthopaedic Surgeons, The, 2020, 28, e77-e85.	1.1	8
448	Hand movement classification from measured scattering parameters using deep convolutional neural network. Measurement: Journal of the International Measurement Confederation, 2020, 151, 107258.	2.5	11
449	The validity of two widely used commercial and research-grade activity monitors, during resting, household and activity behaviours. Health and Technology, 2020, 10, 637-648.	2.1	17
450	Gait analysis â€" Available platforms for outcome assessment. Injury, 2020, 51, S90-S96.	0.7	55
451	Mechano-acoustic sensing of physiological processes and body motions via a soft wireless device placed at the suprasternal notch. Nature Biomedical Engineering, 2020, 4, 148-158.	11.6	223
452	Using accelerometry for measurement of motor behavior in children: Relationship of real-world movement to standardized evaluation. Research in Developmental Disabilities, 2020, 96, 103546.	1.2	12
453	Use of social media big data as a novel HIV surveillance tool in South Africa. PLoS ONE, 2020, 15, e0239304.	1.1	20
454	Sit-To-Stand Movement Evaluated Using an Inertial Measurement Unit Embedded in Smart Glassesâ€"A Validation Study. Sensors, 2020, 20, 5019.	2.1	14
455	Integration and Testing of a Three-Axis Accelerometer in a Woven E-Textile Sleeve for Wearable Movement Monitoring. Sensors, 2020, 20, 5033.	2.1	15
456	An Evaluation of Three Kinematic Methods for Gait Event Detection Compared to the Kinetic-Based â€˜Gold Standardâ€™. Sensors, 2020, 20, 5272.	2.1	29
457	The Use of Inertial Measurement Units for the Study of Free Living Environment Activity Assessment: A Literature Review. Sensors, 2020, 20, 5625.	2.1	18
458	Energy expenditure and movement activity analysis of sepaktakraw players in the Thailand league. Journal of Exercise Science and Fitness, 2020, 18, 136-141.	0.8	3
459	Assessing Motor Function in Congenital Muscular Dystrophy Patients Using Accelerometry. Journal of Neuroscience Nursing, 2020, 52, 172-178.	0.7	3
460	Estado sobre la situaciÃ³n del uso y utilidades potenciales de las nuevas tecnologÃas para medir actividad fÃsica. RevisiÃ³n sistemÃ¡tica de la literatura. Atencion Primaria Practica, 2020, 2, 100064.	0.0	1
461	Accelerometer-Based Activity Recognition of Workers at Construction Sites. Frontiers in Built Environment, 2020, 6, .	1.2	7
462	Machine Learning based Accuracy Prediction Model for Augmented Biofeedback in Precision Shooting. Procedia Computer Science, 2020, 174, 358-363.	1.2	1
463	Methods for Step Count Data: Determining â€œValidâ€•Days and Quantifying Fragmentation of Walking Bouts. Gait and Posture, 2020, 81, 205-212.	0.6	2
464	Is the number of daily walking steps in sedentary workers affected by age, gender, body mass index, education, and overall energy expenditure?. Work, 2020, 66, 1-8.	0.6	4

#	Article	IF	Citations
465	Modeling Fabric Movement for Future E-Textile Sensors. Sensors, 2020, 20, 3735.	2.1	4
466	Design and Implementation of a Multifunction Wearable Device to Monitor Sleep Physiological Signals. Micromachines, 2020, 11, 672.	1.4	14
467	Technology for monitoring everyday prosthesis use: a systematic review. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 93.	2.4	52
468	The Gaitprint: Identifying Individuals by Their Running Style. Sensors, 2020, 20, 3810.	2.1	10
469	Criterion validity of wearable monitors and smartphone applications to measure physical activity energy expenditure in adolescents. Sport Sciences for Health, 2020, 16, 755-763.	0.4	3
470	Wearable Health Technology to Quantify the Functional Impact of Peripheral Neuropathy on Mobility in Parkinsonâ€™s Disease: A Systematic Review. Sensors, 2020, 20, 6627.	2.1	9
471	Epileptic Seizure Detection and Experimental Treatment: A Review. Frontiers in Neurology, 2020, 11, 701.	1.1	30
472	Finding Structure in Time: Visualizing and Analyzing Behavioral Time Series. Frontiers in Psychology, 2020, 11, 1457.	1.1	26
473	Gait-cycle segmentation method based on lower-trunk acceleration signals and dynamic time warping. Medical Engineering and Physics, 2020, 82, 70-77.	0.8	6
474	Economic Viability of Adoption of Automated Oestrus Detection Technologies on Dairy Farms: A Review. Animals, 2020, 10, 1241.	1.0	18
475	Real-time, personalized medicine through wearable sensors and dynamic predictive modeling: A new paradigm for clinical medicine. Current Opinion in Systems Biology, 2020, 20, 17-25.	1.3	38
476	A Multi-sensor School Violence Detecting Method Based on Improved Relief-F and D-S Algorithms. Mobile Networks and Applications, 2020, 25, 1655-1662.	2.2	6
477	Lossless Compression of Human Movement IMU Signals. Sensors, 2020, 20, 5926.	2.1	2
479	Test-Retest, Inter-Rater and Intra-Rater Reliability for Spatiotemporal Gait Parameters Using SANE (an) Tj ETQq1 1 0.784314 rgBT /Overl	1.3	26
480	Smartphone Usage. , 2020, , 27-43.		3
481	Health and Behaviour Change. , 2020, , 44-72.		0
482	Social Interaction and Interpersonal Relationships. , 2020, , 73-95.		0
486	Personality and Individual Differences. , 2020, , 96-114.		0

#	Article	IF	Citations
487	Safety and Security. , 2020, , 138-162.		0
490	Validity of Accelerometers for the Evaluation of Energy Expenditure in Obese and Overweight Individuals: A Systematic Review. Journal of Nutrition and Metabolism, 2020, 2020, 1-22.	0.7	21
491	Health Applications of Gerontechnology, Privacy, and Surveillance: A Scoping Review. Surveillance & Society, 2020, 18, 216-230.	0.4	12
492	Fast Wearable Sensorâ€"Based Footâ€"Ground Contact Phase Classification Using a Convolutional Neural Network with Sliding-Window Label Overlapping. Sensors, 2020, 20, 4996.	2.1	13
493	AI Approaches towards Prechtlâ€™s Assessment of General Movements: A Systematic Literature Review. Sensors, 2020, 20, 5321.	2.1	33
494	Validation of a portable system for spatial-temporal gait parameters based on a single inertial measurement unit and a mobile application. European Journal of Translational Myology, 2020, 30, 268-276.	0.8	5
495	A Random Forest-Based Accuracy Prediction Model for Augmented Biofeedback in a Precision Shooting Training System. Sensors, 2020, 20, 4512.	2.1	1
496	Detection and Characterization of Physical Activity and Psychological Stress from Wristband Data. Signals, 2020, 1, 188-208.	1.2	16
497	Wearable Inertial Sensors to Assess Gait during the 6-Minute Walk Test: A Systematic Review. Sensors, 2020, 20, 2660.	2.1	43
498	Mobile Health Monitoring of Cardiac Status. Annual Review of Biomedical Data Science, 2020, 3, 243-263.	2.8	4
499	Impact of hemodialysis and post-dialysis period on granular activity levels. BMC Nephrology, 2020, 21, 197.	0.8	5
500	Assessment of Physical Activity in Adults: A Review of Validated Questionnaires From a Nutritionistâ€™s Point of View. Evaluation and the Health Professions, 2020, 43, 235-254.	0.9	2
501	Quantifying Lumbar Mobilization With Inertial Measurement Unit. Journal of Manipulative and Physiological Therapeutics, 2020, 43, 114-122.	0.4	1
502	Lightâ€intensity physical activity derived from count or activity types is differently associated with adiposity markers. Scandinavian Journal of Medicine and Science in Sports, 2020, 30, 1966-1975.	1.3	4
503	Electronic Skin Wearable Sensors for Detecting Lumbarâ€"Pelvic Movements. Sensors, 2020, 20, 1510.	2.1	21
504	Decline of physical activity in early adolescence: A 3-year cohort study. PLoS ONE, 2020, 15, e0229305.	1.1	40
505	Development of a Low-Power Microcontroller-Based Wrist-Worn Device With Resource-Constrained Activity Detection Algorithm. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 7522-7529.	2.4	8
506	Novel Experimental Protocol to Capture Movement Data and Predict Shot Execution in Cricket Batting. Proceedings (mdpi), 2020, 49, .	0.2	0

#	ARTICLE	IF	CITATIONS
507	A Review on Human Healthcare Internet of Things: A Technical Perspective. SN Computer Science, 2020, 1, 1.	2.3	30
508	Feasibility of ActivABLES to promote home-based exercise and physical activity of community-dwelling stroke survivors with support from caregivers: A mixed methods study. BMC Health Services Research, 2020, 20, 562.	0.9	8
509	Can Smartphone-Derived Step Data Predict Laboratory-Induced Real-Life Like Fall-Risk in Community-Dwelling Older Adults?. Frontiers in Sports and Active Living, 2020, 2, 73.	0.9	1
510	Automated Home Oxygen Delivery for Patients with COPD and Respiratory Failure: A New Approach. Sensors, 2020, 20, 1178.	2.1	3
511	Literature Review on Transfer Learning for Human Activity Recognition Using Mobile and Wearable Devices with Environmental Technology. SN Computer Science, 2020, 1, 1.	2.3	31
512	The impact of motor task and environmental constraints on gait patterns during treadmill walking in a fully immersive virtual environment. Gait and Posture, 2020, 77, 243-249.	0.6	8
513	Activity Mapping of Children in Play Using Multivariate Analysis of Movement Events. Medicine and Science in Sports and Exercise, 2020, 52, 259-266.	0.2	2
514	A Survey on Hand Pose Estimation with Wearable Sensors and Computer-Vision-Based Methods. Sensors, 2020, 20, 1074.	2.1	74
515	Identifying Sheep Activity from Tri-Axial Acceleration Signals Using a Moving Window Classification Model. Remote Sensing, 2020, 12, 646.	1.8	34
516	Sensor Technologies for Fall Detection Systems: A Review. IEEE Sensors Journal, 2020, 20, 6889-6919.	2.4	73
517	Wearable Sensor System to Monitor Physical Activity and the Physiological Effects of Heat Exposure. Sensors, 2020, 20, 855.	2.1	41
518	Percentiles and Reference Values for the Accelerometric Assessment of Static Balance in Women Aged 50â€"80 Years. Sensors, 2020, 20, 940.	2.1	18
519	Sensor Technologies to Manage the Physiological Traits of Chronic Pain: A Review. Sensors, 2020, 20, 365.	2.1	34
520	Joint Pedestrian Motion State and Device Pose Classification. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 5862-5874.	2.4	6
521	A comparison of different machine learning algorithms, types and placements of activity monitors for physical activity classification. Measurement: Journal of the International Measurement Confederation, 2020, 154, 107480.	2.5	14
522	An entirely soft varifocal lens based on an electro-hydraulic actuator. Smart Materials and Structures, 2020, 29, 045017.	1.8	6
523	Estimation of Hand Motion from Piezoelectric Soft Sensor Using Deep Recurrent Network. Applied Sciences (Switzerland), 2020, 10, 2194.	1.3	11
524	Demonstration of the Effect of Centre of Mass Height on Postural Sway Using Accelerometry for Balance Analysis. Technologies, 2020, 8, 20.	3.0	2

#	ARTICLE	IF	CITATIONS
525	Reliability of accelerometric assessment of balance in children aged 6–12 years. BMC Pediatrics, 2020, 20, 161.	0.7	12
526	Comparisons of Subjective and Objective Measures of Free-Living Daily Physical Activity and Sedentary Behavior in College Students. Journal of Science in Sport and Exercise, 2021, 3, 186-194.	0.4	0
527	A Data Driven End-to-End Approach for In-the-Wild Monitoring of Eating Behavior Using Smartwatches. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 22-34.	3.9	29
528	Self-Powered Inertial Sensor Based on Carbon Nanotube Yarn. IEEE Transactions on Industrial Electronics, 2021, 68, 8904-8910.	5.2	11
529	Preliminary comparison of respiratory signals using acceleration on neck and humidity in exhaled air. Microsystem Technologies, 2021, 27, 1-9.	1.2	5
530	Upper body activity classification using an inertial measurement unit in court and field-based sports: A systematic review. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2021, 235, 83-95.	0.4	13
531	Gait analysis in neurological populations: Progression in the use of wearables. Medical Engineering and Physics, 2021, 87, 9-29.	0.8	79
532	Effect of hemodiafiltration on measured physical activity: primary results of the HDFIT randomized controlled trial. Nephrology Dialysis Transplantation, 2021, 36, 1057-1070.	0.4	22
533	Assessing personal exposure using Agent Based Modelling informed by sensors technology. Environmental Research, 2021, 192, 110141.	3.7	14
534	Measuring physical activity with activity monitors in patients with heart failure: from literature to practice. A position paper from the Committee on Exercise Physiology and Training of the Heart Failure Association of the European Society of Cardiology. European Journal of Heart Failure, 2021, 23, 83-91.	2.9	17
535	Technologies for the automated collection of heat stress data in sheep. Animal Biotelemetry, 2021, 9, .	0.8	27
536	Acceleration Gait Measures as Proxies for Motor Skill of Walking: A Narrative Review. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 249-261.	2.7	20
537	Sensor Based Agility Assessment in Sport. Procedia Computer Science, 2021, 187, 440-446.	1.2	3
538	Gait analysis in patients with neurological disorders using ankle-worn accelerometers. Journal of Supercomputing, 2021, 77, 8374-8390.	2.4	1
539	Toward a Remote Assessment of Walking Bout and Speed: Application in Patients With Multiple Sclerosis. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 4217-4228.	3.9	16
540	Wearable Devices and COVID-19: State of the Art, Framework, and Challenges. Studies in Systems, Decision and Control, 2021, , 157-180.	0.8	18
541	Continuous home monitoring of Parkinson's disease using inertial sensors: A systematic review. PLoS ONE, 2021, 16, e0246528.	1.1	50
542	Intra- and Inter-Model Variability of Light Detection Using a Commercially Available Light Sensor. Journal of Medical Systems, 2021, 45, 46.	2.2	4

#	Article	IF	Citations
543	Development of a wearable device for the early diagnosis of neurodegenerative diseases. IOP Conference Series: Materials Science and Engineering, 2021, 1038, 012033.	0.3	3
544	Accelerometer-measured physical activity and its impact on sleep quality in patients suffering from restless legs syndrome. BMC Neurology, 2021, 21, 90.	0.8	6
545	The Validity of MotionSense HRV in Estimating Sedentary Behavior and Physical Activity under Free-Living and Simulated Activity Settings. Sensors, 2021, 21, 1411.	2.1	7
547	The emerging clinical role of wearables: factors for successful implementation in healthcare. Npj Digital Medicine, 2021, 4, 45.	5.7	143
548	Factors Affecting the Initial Engagement of Older Adults in the Use of Interactive Technology. International Journal of Environmental Research and Public Health, 2021, 18, 2847.	1.2	17
549	Objective Quantification of In-Hospital Patient Mobilization after Cardiac Surgery Using Accelerometers: Selection, Use, and Analysis. Sensors, 2021, 21, 1979.	2.1	7
550	Smart wearable devices in cardiovascular care: where we are and how to move forward. Nature Reviews Cardiology, 2021, 18, 581-599.	6.1	319
551	Inter-Device Agreement between Fitbit Flex 1 and 2 for Assessing Sedentary Behavior and Physical Activity. International Journal of Environmental Research and Public Health, 2021, 18, 2716.	1.2	0
552	Smart wearable medical devices for Isometric Contraction of muscles and joint tracking with gyro sensors for elderly people. Journal of Ambient Intelligence and Humanized Computing, 0, , 1.	3.3	4
553	How Does Temperament in Toddlers at Elevated Likelihood for Autism Relate to Symptoms of Autism and ADHD at Three Years of Age?. Journal of Autism and Developmental Disorders, 2022, 52, 995-1006.	1.7	3
554	Reliability of heart rate and respiration rate measurements with a wireless accelerometer in postbariatric recovery. PLoS ONE, 2021, 16, e0247903.	1.1	19
555	Smart Mandibular Advancement Device for Intraoral Monitoring of Cardiorespiratory Parameters and Sleeping Postures. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 248-258.	2.7	12
556	Accelerometer-Measured Daily Step Counts and Adiposity Indicators among Latin American Adults: A Multi-Country Study. International Journal of Environmental Research and Public Health, 2021, 18, 4641.	1.2	8
557	Open-source Longitudinal Sleep Analysis From Accelerometer Data (DPSleep): Algorithm Development and Validation. JMIR MHealth and UHealth, 2021, 9, e29849.	1.8	11
559	Work-Related Risk Assessment According to the Revised NIOSH Lifting Equation: A Preliminary Study Using a Wearable Inertial Sensor and Machine Learning. Sensors, 2021, 21, 2593.	2.1	35
560	Clinical Use of Surface Electromyography to Track Acute Upper Extremity Muscle Recovery after Stroke: A Descriptive Case Study of a Single Patient. Applied System Innovation, 2021, 4, 32.	2.7	3
561	Hand Gesture Recognition Using EGaIn-Silicone Soft Sensors. Sensors, 2021, 21, 3204.	2.1	15
562	HulaMove: Using Commodity IMU for Waist Interaction. , 2021, , .		5

#	ARTICLE	IF	CITATIONS
563	Assistive devices for the people with disabilities enabled by triboelectric nanogenerators. JPhys Materials, 2021, 4, 034015.	1.8	14
564	Analysis of Older Adults in Spanish Care Facilities, Risk of Falling and Daily Activity Using Xiaomi Mi Band 2. Sensors, 2021, 21, 3341.	2.1	8
565	SoniBand: Understanding the Effects of Metaphorical Movement Sonifications on Body Perception and Physical Activity. , 2021, , .		10
566	Recognizing Manual Activities Using Wearable Inertial Measurement Units: Clinical Application for Outcome Measurement. Sensors, 2021, 21, 3245.	2.1	0
567	Crowdsourcing in Cognitive and Systems Neuroscience. Neuroscientist, 2022, 28, 425-437.	2.6	12
569	ANN-based automated scaffold builder activity recognition through wearable EMG and IMU sensors. Automation in Construction, 2021, 126, 103653.	4.8	57
570	Design of a neurocognitive digital health system (NDHS) for neurodegenerative diseases. , 2021, , .		2
571	A two-stage amplified PZT sensor for monitoring lung and heart sounds in discharged pneumonia patients. Microsystems and Nanoengineering, 2021, 7, 55.	3.4	11
572	The effect of strip grazing on physical activity and behaviour in ponies. Journal of Equine Veterinary Science, 2021, 110, 103745.	0.4	1
573	A Comparison of Physical Activity Levels, Sleep Disrupting Behavior, and Stress/Affective Distress as Predictors of Sleep as Indexed by Actigraphy. Journal of Physical Activity and Health, 2021, 18, 937-948.	1.0	2
574	Recent developments in sensors for wearable device applications. Analytical and Bioanalytical Chemistry, 2021, 413, 6037-6057.	1.9	59
575	Non-Invasive Physiological Monitoring for Physical Exertion and Fatigue Assessment in Military Personnel: A Systematic Review. International Journal of Environmental Research and Public Health, 2021, 18, 8815.	1.2	17
576	Strategies to enhance routine physical activity in care home residents: the REACH research programme including a cluster feasibility RCT. Programme Grants for Applied Research, 2021, 9, 1-314.	0.4	0
577	Could New Generations of Sensors Reshape the Management of Parkinsonâ€™s Disease?. Clinical and Translational Neuroscience, 2021, 5, 18.	0.4	2
578	The impact of resistance training on strength and correlates of physical activity in youth. Journal of Sports Sciences, 2021, , 1-11.	1.0	2
579	Cross-Domain Classification of Physical Activity Intensity: An EDA-Based Approach Validated by Wrist-Measured Acceleration and Physiological Data. Electronics (Switzerland), 2021, 10, 2159.	1.8	2
580	Classification of Sepak Takraw Kicks Using Machine Learning. Lecture Notes in Mechanical Engineering, 2022, , 321-331.	0.3	2
581	Actigraphy informs distinct patient-centered outcomes in Pre-COPD. Respiratory Medicine, 2021, 187, 106543.	1.3	1

#	Article	IF	Citations
582	A Machine Learning Approach for Early COVID-19 Symptoms Identification. Computers, Materials and Continua, 2022, 70, 3803-3820.	1.5	1
583	Artificial intelligence/machine learning solutions for mobile and wearable devices. , 2021, , 55-77.		3
584	Wearable Devices and Privacy Concerns. Advances in Information Security, Privacy, and Ethics Book Series, 2021, , 83-111.	0.4	1
585	Wearable Devices and Privacy Concerns. , 2021, , 208-230.		0
586	Parallel Statistical and Machine Learning Methods for Estimation of Physical Load. Lecture Notes in Computer Science, 2018, , 483-497.	1.0	4
587	Evaluation of a Time Reversal Method with Dynamic Time Warping Matching Function for Human Fall Detection Using Structural Vibrations. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 171-176.	0.3	5
588	aHead: Considering the Head Position in a Multi-sensory Setup of Wearables to Recognize Everyday Activities with Intelligent Sensor Fusions. Lecture Notes in Computer Science, 2015, , 741-752.	1.0	11
589	A Cloud-Based Mobile System for Improving Vital Signs Monitoring During Hospital Transfers. Lecture Notes in Computer Science, 2015, , 467-479.	1.0	1
590	Investigation of Sensor Placement for Accurate Fall Detection. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2017, , 225-232.	0.2	13
591	In Situ Approaches to Studying Occupants. , 2018, , 129-167.		5
592	iBoccia: A Framework to Monitor the Boccia Gameplay in Elderly. Lecture Notes in Computational Vision and Biomechanics, 2018, , 437-446.	0.5	3
593	How Accurate Are Smartphone Accelerometers to Identify Intermittent Claudication?. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2018, , 19-25.	0.2	3
594	An End-To-End Unsupervised Approach Employing Convolutional Neural Network Autoencoders for Human FallÂDetection. Smart Innovation, Systems and Technologies, 2019, , 185-196.	0.5	9
595	An Information-Aware Privacy-Preserving Accelerometer Data Sharing. Communications in Computer and Information Science, 2017, , 425-432.	0.4	1
596	Employee acceptability of wearable mental workload monitoring: exploring effects of framing the goal and context in corporate communication. Cognition, Technology and Work, 2021, 23, 537-552.	1.7	5
597	Physical activity and sedentary behavior in amateur sports: master athletes are not free from prolonged sedentary time. Sport Sciences for Health, 2019, 15, 385-391.	0.4	6
598	Using accelerations of single inertial measurement units to determine the intensity level of light-moderate-vigorous physical activities: Technical and mathematical considerations. Journal of Biomechanics, 2020, 107, 109834.	0.9	8
601	Towards an Integrated Health and Wellness Program Using Human-IoT Interaction. , 2020, , .		7

#	Article	IF	Citations
602	Adherence to activity monitoring devices or smartphone applications for improving physical activity in adults with cardiovascular disease: a systematic review protocol. JBI Database of Systematic Reviews and Implementation Reports, 2018, 16, 1634-1642.	1.7	4
603	A Hybrid Network Architecture Applied to Smart Grid. International Journal of Computing and Network Technology, 2013, 1, 45-59.	0.2	5
604	Tractor cabin ergonomics analyses by means of kinect motion capture technology. Contemporary Engineering Sciences, 0, 8, 1339-1349.	0.2	6
605	Validation and Reliability of a Classification Method to Measure the Time Spent Performing Different Activities. PLoS ONE, 2015, 10, e0128299.	1.1	6
606	Home detection of freezing of gait using support vector machines through a single waist-worn triaxial accelerometer. PLoS ONE, 2017, 12, e0171764.	1.1	135
607	Performance of thigh-mounted triaxial accelerometer algorithms in objective quantification of sedentary behaviour and physical activity in older adults. PLoS ONE, 2017, 12, e0188215.	1.1	27
609	ORIENTATION OF A TRIAXIAL ACCELEROMETER USING A HOMOGENEOUS TRANSFORMATION MATRIX AND KALMAN FILTERS. International Journal on Smart Sensing and Intelligent Systems, 2014, 7, 1631-1646.	0.4	7
610	Usefulness of Mobile Devices in the Diagnosis and Rehabilitation of Patients with Dizziness and Balance Disorders: A State of the Art Review. Clinical Interventions in Aging, 2020, Volume 15, 2397-2406.	1.3	13
611	Evaluation of Clinical Outcomes and Simultaneous Digital Tracking of Daily Physical Activity, Heart Rate, and Inhalation Behavior in Patients With Pulmonary Arterial Hypertension Treated With Inhaled Iloprost: Protocol for the Observational VENTASTEP Study. JMIR Research Protocols, 2019, 8, e12144.	0.5	6
612	Enhancement of Neurocognitive Assessments Using Smartphone Capabilities: Systematic Review. JMIR MHealth and UHealth, 2020, 8, e15517.	1.8	18
613	The Development of a Mobile Monitoring and Feedback Tool to Stimulate Physical Activity of People With a Chronic Disease in Primary Care: A User-Centered Design. JMIR MHealth and UHealth, 2013, 1, e8.	1.8	114
614	Estimating Accuracy at Exercise Intensities: A Comparative Study of Self-Monitoring Heart Rate and Physical Activity Wearable Devices. JMIR MHealth and UHealth, 2017, 5, e34.	1.8	198
615	A Kinematic Sensor and Algorithm to Detect Motor Fluctuations in Parkinson Disease: Validation Study Under Real Conditions of Use. JMIR Rehabilitation and Assistive Technologies, 2018, 5, e8.	1.1	43
616	Fuzzy Inference System for Physical Activity Recognition Based on General Features and PCA. , 0, , .		1
617	Development of Driver Analysis System to Improve Driving Comfort and to Reduce Mechanical Abrasion in Vehicles. Teknik Bilimler Dergisi, 0, , .	0.0	2
618	School-based Interventions to Reduce Sedentary Behaviour in Children: A Systematic Review. AIMS Public Health, 2016, 3, 520-541.	1.1	46
619	The Conceptual MADE Framework for Pervasive and Knowledge-Based Decision Support in Telemedicine. International Journal of Knowledge and Systems Science, 2016, 7, 25-39.	0.5	4
620	Physical activity recognition via minimal in-shoes force sensor configuration. , 2013, , .		3

#	ARTICLE	IF	CITATIONS
621	Distance Physical Rehabilitation System Framework with Multi-Kinect Motion Captured Data. Communications on Applied Electronics, 2015, 1, 29-39.	0.4	2
622	Gopher FITStep Pro accuracy when measuring steps and moderate-to-vigorous physical activity. Acta Gymnica, 2017, 47, 3-10.	1.1	1
624	Feasibility of a smartphone app to enhance physical activity in progressive MS: a pilot randomized controlled pilot trial over three months. PeerJ, 2020, 8, e9303.	0.9	13
625	Using Portable Transducers to Measure Tremor Severity. Tremor and Other Hyperkinetic Movements, 2016, 6, 375.	1.1	29
626	Wearable device for yogic breathing with real-time heart rate and posture monitoring. Journal of Medical Signals and Sensors, 2021, 11, 253.	0.5	7
627	Wearable inertial sensors for human movement analysis: a five-year update. Expert Review of Medical Devices, 2021, 18, 79-94.	1.4	48
628	Rationale and design of the SafeHeart study: Development and testing of a mHealth tool for the prediction of arrhythmic events and implantable cardioverter-defibrillator therapy. Cardiovascular Digital Health Journal, 2021, 2, S11-S20.	0.5	3
629	Current and Potential Applications of Wearables in Sports Cardiology. Current Treatment Options in Cardiovascular Medicine, 2021, 23, 1.	0.4	7
630	A Novel Activity Monitoring Device for Home Rehabilitation Applications. , 2012, , .		2
631	Instrumentation: Classical and Emerging Techniques. , 2013, , 341-370.		1
633	Fall Detection Systems to be Used by Elderly People. , 2013, , 449-473.		0
634	Ambulatory Assessment in Neuropsychology. Zeitschrift Für Neuropsychologie = Journal of Neuropsychology, 2014, 25, 239-251.	0.2	1
635	Gait Recognition: Evaluation. , 2014, , 1-12.		2
636	Energy Expenditure Analysis: A Comparative Research of Based on Mobile Accelerometers. Lecture Notes in Computer Science, 2014, , 38-45.	1.0	2
637	Step Length Estimation and Activity Detection in a PDR System Based on a Fuzzy Model with Inertial Sensors. Studies in Computational Intelligence, 2014, , 631-645.	0.7	1
638	Fall-Risk Classification of the Timed Up-And-Go Test with Principle Component Analysis. International Journal of Neurorehabilitation, 2014, 01, .	0.1	2
639	Activity Recognition via Distributed Random Projection and Joint Sparse Representation in Body Sensor Networks. Communications in Computer and Information Science, 2014, , 51-60.	0.4	1
640	Sensor Module for Detecting Postural Change and Falls. Journal of Sensor Science and Technology, 2014, 23, 362-367.	0.1	2

#	ARTICLE	IF	CITATIONS
641	Feasibility Study of Using Microsoft Kinect for Physical Therapy Monitoring. , 2015, , 5542-5554.		1
644	System do monitorowania ruchu i zachowań osób starszych. , 2015, 1, 21-26.	0.0	0
645	Evaluation of Accuracy and Inaccuracy of Depth Sensor based Kinect System for Motion Analysis in Specific Rotational Movement for Balance Rehabilitation Training. Journal of Biomedical Engineering Research, 2015, 36, 228-234.	0.1	0
646	Embedded Sensor Systems for Health in Home Healthcare. , 2016, , 563-573.		0
647	12 Wearable Nanoenabled Biosensors. , 2016, , 325-350.		0
648	Step counting for slow and intermittent ambulation based on a smartwatch accelerometer. , 2017, , .		0
649	El estudio de la enfermedad de Parkinson con instrumentación biomédica: proyecto para el aula de Tecnología en educación secundaria. Tecnología, Ciencia Y Educación, 0, , 102-113.	0.0	0
650	Jogos Virtuais. LICERE - Revista Do Programa De Pós-graduação Interdisciplinar Em Estudos Do Lazer, 2017, 20, 231-249.	0.1	0
652	Gait motion analysis using optical and inertial sensor fusion to design human kinetic energy harvesting systems. , 2017, , .		0
653	A Validation Study of Rehabilitation Exercise Monitoring Using Kinect. , 2018, , 5941-5954.		1
654	Crafting Usable Quantified Self-wearable Technologies for Older Adult. Advances in Intelligent Systems and Computing, 2019, , 75-87.	0.5	4
657	Paediatric physical activity and health: Moving towards a measure of quality. Baltic Journal of Health and Physical Activity, 0, , 7-24.	0.2	2
658	The system of daily self-monitoring of physical activity of youth in various move and energy modes. , 0, , .		0
659	A Dynamic Convergence Algorithm for Thermal Comfort Modelling. Lecture Notes in Computer Science, 2019, , 680-689.	1.0	2
660	Wearable Computing and Human-Centricity. Studies in Systems, Decision and Control, 2019, , 381-413.	0.8	0
661	School Violence Detection Based on Multi-sensor Fusion and Improved Relief-F Algorithms. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2019, , 261-269.	0.2	2
662	A Validation Study of Rehabilitation Exercise Monitoring Using Kinect. Advances in Medical Diagnosis, Treatment, and Care, 2019, , 466-482.	0.1	1
663	Vision-Based Marker-Less Spatiotemporal Gait Analysis by Using a Mobile Platform: Preliminary Validation. Communications in Computer and Information Science, 2019, , 126-141.	0.4	0

#	Article	IF	Citations
664	A high sensitivity piezoelectric MEMS accelerometer based on aerosol deposition method. , 2019, , .		4
667	A Multi-disciplinary Assessments Tool for Human-Machine Interaction. Lecture Notes in Mechanical Engineering, 2020, , 741-752.	0.3	0
669	Automatic Identification of Hand-Held Vibrating Tools Through Commercial Smartwatches and Machine Learning. Studies in Systems, Decision and Control, 2020, , 481-489.	0.8	0
670	A Preliminary Analysis of the Various Reaching Pattern Classifications. , 2020, , .		0
672	YaÅŸlÄ±larda DÃ¼ÅŸme Riskini DeÄŸerlendirmek iÃ§in Ä°vmelenme Sinyalinin Frekans Domeni Ã–zellikleri. European Journal of Science and Technology, 0, , 150-155.	0.5	1
674	Review on Biomedical Sensors, Technologies and Algorithms for Diagnosis of Sleep Disordered Breathing: Comprehensive Survey. IEEE Reviews in Biomedical Engineering, 2022, 15, 4-22.	13.1	20
675	Supervised Learning for Human Action Recognition from Multiple Kinects. Lecture Notes in Computer Science, 2020, , 32-46.	1.0	1
676	Physical Activity Tracking Wristbands for Use in Research With Older Adults: An Overview and Recommendations. Journal for the Measurement of Physical Behaviour, 2020, 3, 265-273.	0.5	2
677	Mixture of hidden Markov models for accelerometer data. Annals of Applied Statistics, 2020, 14, .	0.5	3
678	Throwing Event Detection using Acceleration Magnitude collected with Wrist-Worn Sensors. , 2020, , .		1
679	Accuracy of vital parameters measured by a wearable patch following major abdominal cancer surgery. European Journal of Surgical Oncology, 2022, 48, 917-923.	0.5	7
680	Association between Active Transportation and Public Transport with an Objectively Measured Meeting of Moderate-to-Vigorous Physical Activity and Daily Steps Guidelines in Adults by Sex from Eight Latin American Countries. International Journal of Environmental Research and Public Health, 2021, 18, 11553.	1.2	1
681	Autocorrelation-based method to identify disordered rhythm in Parkinsonâ€™s disease tasks: A novel approach applicable to multimodal devices. PLoS ONE, 2020, 15, e0238486.	1.1	0
683	Structural Health Monitoring System for Bridges Using Internet of Things. Lecture Notes in Networks and Systems, 2021, , 781-790.	0.5	0
684	YaÅŸlÄ±larda DÃ¼ÅŸme Riskinin Belirlenmesi Ä°Ã§in YÃ¼rÃ¼yÃ¼ÅŸ EsnasÄ±nda KayÄ±t Edilen Ä°vmelenme Sinyallerinin Zaman Domeni Ã–zelliklerinin Degerlendirilmesi. European Journal of Science and Technology, 0, , .	0.5	0
685	Analysis of Body Balance Indicators of the Aged based on Spatial Positions of Human Key Body Parts. , 2020, , .		0
686	ReadySteady: app for accelerometer-based activity monitoring and wellness-motivation feedback system for older adults. AMIA ... Annual Symposium proceedings, 2012, 2012, 931-9.	0.2	17
687	Using Hexoskin Wearable Technology to Obtain Body Metrics During Trail Hiking. International Journal of Exercise Science, 2015, 8, 425-430.	0.5	10

#	ARTICLE	IF	CITATIONS
688	The New Paradigm in Community-Based Care: Managing Mindset and Expectations. Journal of Emergencies, Trauma and Shock, 2018, 11, 156-159.	0.3	1
689	The Validity and Reliability of the Mi Band Wearable Device for Measuring Steps and Heart Rate. International Journal of Exercise Science, 2020, 13, 689-701.	0.5	6
690	Validation of a portable system for spatial-temporal gait parameters based on a single inertial measurement unit and a mobile application. European Journal of Translational Myology, 2020, 30, 9002.	0.8	3
691	Physiological Responses to Active Video Games Compared to Treadmill Walking and TV Watching in Obese Children and Adolescents. International Journal of Exercise Science, 2021, 14, 519-532.	0.5	0
692	Wearable sensors for remote patient monitoring in orthopedics. Minerva Orthopedics, 2021, 72, .	0.1	5
693	Accelerometer-assessed physical behaviour and the association with clinical outcomes in implantable cardioverter defibrillator recipients: A systematic review. Cardiovascular Digital Health Journal, 2021, 3, 46-55.	0.5	2
694	Rebar Worker Analysis Using a 3-Axis Accelerometer. Frontiers in Built Environment, 2021, 7, .	1.2	0
695	Using Sensor Graphs for Monitoring the Effect on the Performance of the OTAGO Exercise Program in Older Adults. Sensors, 2022, 22, 493.	2.1	4
696	Algorithm for Human Fall Detection Based on Acceleration Measurement. , 2020, , .		0
697	Measuring children's eating behavior with a wearable device. , 2020, , .		4
698	Improving Activity Recognition while Reducing Misclassification of Unknown Activities. , 2021, , .		2
699	Accuracy comparison of machine learning algorithms at various wear-locations for activity identification post stroke: A pilot analysis*. , 2021, 2021, 6106-6109.		0
700	Learning-Based Posture Detection Using Purely Passive Magneto-Inductive Tags. , 2021, , .		2
701	Levels and correlates of physical activity and capacity among HIV-infected compared to HIV-uninfected individuals. PLoS ONE, 2022, 17, e0262298.	1.1	6
702	Free-Living Gait Cadence Measured by Wearable Accelerometer: A Promising Alternative to Traditional Measures of Mobility for Assessing Fall Risk. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2023, 78, 802-810.	1.7	7
703	Gait analysis: overview, trends, and challenges. , 2022, , 53-64.		1
704	Remote Healthcare for Elderly People Using Wearables: A Review. Biosensors, 2022, 12, 73.	2.3	26
705	A Comprehensive Literature Review on Children's Databases for Machine Learning Applications. IEEE Access, 2022, 10, 12262-12285.	2.6	5

#	ARTICLE	IF	CITATIONS
706	Review of Fiber- or Yarn-Based Wearable Resistive Strain Sensors: Structural Design, Fabrication Technologies and Applications. Textiles, 2022, 2, 81-111.	1.8	12
709	Applications of artificial intelligence to neurological disorders: current technologies and open problems. , 2022, , 243-272.		4
711	Daily Step Counts in Patients With Chronic Kidney Disease: A Systematic Review and Meta-Analysis of Observational Studies. Frontiers in Medicine, 2022, 9, 842423.	1.2	9
712	Application of Wearable Sensors Technology for Lumbar Spine Kinematic Measurements during Daily Activities following Microdiscectomy Due to Severe Sciatica. Biology, 2022, 11, 398.	1.3	4
713	Facilitators and barriers to real-life mobility in community-dwelling older adults: a narrative review of accelerometry- and global positioning system-based studies. Aging Clinical and Experimental Research, 2022, 34, 1733-1746.	1.4	7
714	Skin sympathetic nerve activity in patients with chronic orthostatic intolerance. Heart Rhythm, 2022, 19, 1141-1148.	0.3	3
715	Comparison of Different Signal Processing Methodologies and Their Impact on the Range of Acceleration Amplitudes Experienced by Preschool-Aged Children. Measurement in Physical Education and Exercise Science, 0, , 1-14.	1.3	0
716	A meta-analysis of Fitbit devices: same company, different models, different validity evidence. Journal of Medical Engineering and Technology, 2022, 46, 102-115.	0.8	8
717	Predicting atrial fibrillation episodes with rapid ventricular rates associated with low levels of activity. BMC Medical Informatics and Decision Making, 2021, 21, 364.	1.5	1
718	Collection and Classification of Human Posture Data using Wearable Sensors. , 2021, , .		1
725	The new paradigm in community-based care: Managing mindset and expectations. Journal of Emergencies, Trauma and Shock, 2018, 11, 156.	0.3	3
726	Preliminary study on activity monitoring for over 24 hours among stroke patients in a rehabilitation ward. , 2019, 10, 37-41.		3
727	Experimental Study of Posture Detection Using Purely Passive Magneto-Inductive Tags. , 2022, , .		2
728	WISP, Wearable Inertial Sensor for Online Wheelchair Propulsion Detection. Sensors, 2022, 22, 4221.	2.1	3
729	The Case forÂSymptom-Specific Neurological Digital Biomarkers. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2022, , 235-255.	0.2	2
730	Visual Perception Through Smart Mirror. , 2022, , .		1
731	Using Consumer-Wearable Activity Trackers for Risk Prediction of Life-Threatening Heart Arrhythmia in Patients with an Implantable Cardioverter-Defibrillator: An Exploratory Observational Study. Journal of Personalized Medicine, 2022, 12, 942.	1.1	1
732	Smart Phone-Based Motion Capture and Analysis: Importance of Operating Envelope Definition and Application to Clinical Use. Applied Sciences (Switzerland), 2022, 12, 6173.	1.3	6

#	Article	IF	Citations
733	Effect of the knee replacement surgery on activity level based on ActivPAL: a systematic review and meta-analysis study. BMC Musculoskeletal Disorders, 2022, 23, .	0.8	0
734	Estimation of Heart Rate and Energy Expenditure Using a Smart Bracelet during Different Exercise Intensities: A Reliability and Validity Study. Sensors, 2022, 22, 4661.	2.1	1
735	Technical Note: Quantifying music-dance synchrony during salsa dancing with a deep learning-based 2D pose estimator. Journal of Biomechanics, 2022, 141, 111178.	0.9	2
736	Can Digital Health Solutions Fill in the Gap for Effective Guideline Implementation in Cardiovascular Disease Prevention: Hope or Hype?. Current Atherosclerosis Reports, 0, , .	2.0	0
737	Can the relationship between overweight/obesity and sleep quality be explained by affect and behaviour?. Eating and Weight Disorders, 2022, 27, 2821-2834.	1.2	0
738	A Comparative Study on the Influence of Undersampling and Oversampling Techniques for the Classification of Physical Activities Using an Imbalanced Accelerometer Dataset. Healthcare (Switzerland), 2022, 10, 1255.	1.0	3
739	A comprehensive review on the prospects of next-generation wearable electronics for individualized health monitoring, assistive robotics, and communication. Sensors and Actuators A: Physical, 2022, 344, 113715.	2.0	30
740	Wearable technology for early detection of COVID-19: A systematic scoping review. Preventive Medicine, 2022, 162, 107170.	1.6	15
741	Robust Multi-Frequency Posture Detection based on Purely Passive Magneto-Inductive Tags. , 2022, , .		0
742	Wearable Optical Sensing in the Medical Internet of Things (MIoT) for Pervasive Medicine: Opportunities and Challenges. ACS Photonics, 2022, 9, 2579-2599.	3.2	16
743	Gait analysis by using electric signals from a triboelectric nanogenerator. Engineering Research Express, 2022, 4, 035027.	0.8	2
744	Medicine 2032: The future of cardiovascular disease prevention with machine learning and digital health technology. American Journal of Preventive Cardiology, 2022, 12, 100379.	1.3	21
745	Technologiegestütztes funktionelles Training in den eigenen vier Wänden. , 2022, , 133-158.		0
746	Application of Various Sensors in Rehabilitation Program and Clinical Practices. , 2022, , .		0
747	Calibration of an Accelerometer Activity Index Among Older Women and Its Association With Cardiometabolic Risk Factors. Journal for the Measurement of Physical Behaviour, 2022, 5, 145-155.	0.5	1
748	Detecting motor symptom fluctuations in Parkinson's disease with generative adversarial networks. Npj Digital Medicine, 2022, 5, .	5.7	6
749	An IoMT Architecture for Patient Rehabilitation Based on Low-Cost Hardware and Interoperability Standards. Advances in Medical Technologies and Clinical Practice Book Series, 2022, , 37-59.	0.3	1
750	A novel approach for modelling and classifying sit-to-stand kinematics using inertial sensors. PLoS ONE, 2022, 17, e0264126.	1.1	3

#	Article	IF	Citations
751	Non-Invasive Methods of Quantifying Heat Stress Response in Farm Animals with Special Reference to Dairy Cattle. Atmosphere, 2022, 13, 1642.	1.0	12
752	Relationship between liver fat content and lifestyle factors in adults with metabolic syndrome. Scientific Reports, 2022, 12, .	1.6	3
753	Unsupervised Early Detection of Physical Activity Behaviour Changes from Wearable Accelerometer Data. Sensors, 2022, 22, 8255.	2.1	2
754	Wearable Devices for Remote Monitoring of Heart Rate and Heart Rate Variabilityâ€"What We Know and What Is Coming. Sensors, 2022, 22, 8903.	2.1	19
755	Activity Based Remote Health Monitoring System. , 2022, , .		0
756	Suitability of a Low-Cost Wearable Sensor to Assess Turning in Healthy Adults. Sensors, 2022, 22, 9322.	2.1	0
757	Deep Neural Network for the Detections of Fall and Physical Activities Using Foot Pressures and Inertial Sensing. Sensors, 2023, 23, 495.	2.1	6
758	Developing a wearable human activity recognition (WHAR) system for an outdoor jacket. International Journal of Clothing Science and Technology, 2023, 35, 177-196.	0.5	1
759	Affective Touch as Immediate and Passive Wearable Intervention. , 2022, 6, 1-23.		3
760	Ensemble averaging for categorical variables: Validation study of imputing lost data in 24-h recorded postures of inpatients. Frontiers in Physiology, 0, 14, .	1.3	3
761	Usability of a wearable device for home-based upper limb telerehabilitation in persons with stroke: A mixed-methods study. Digital Health, 2023, 9, 205520762311537.	0.9	6
762	Torso Motion Monitoring with an IMU Set-Up. Mechanisms and Machine Science, 2023, , 65-73.	0.3	0
763	Comparison and validation of pressure and acceleration time-domain waveform models of a smart insole for accurate step count in healthy people. , 2022, , .		0
764	Recognizing Human Activity of Daily Living Using a Flexible Wearable for 3D Spine Pose Tracking. Sensors, 2023, 23, 2066.	2.1	2
765	The Use of Wearable Technologies in the Assessment of Physical Activity in Preschool- and School-Age Youth: Systematic Review. International Journal of Environmental Research and Public Health, 2023, 20, 3402.	1.2	3
766	Sensing Technology to Improve the Quality of Life. ACS Symposium Series, 0, , 387-409.	0.5	0
768	Clinical Study of a Wearable Remote Rehabilitation Training System for Patients With Stroke: Randomized Controlled Pilot Trial. JMIR MHealth and UHealth, 0, 11, e40416.	1.8	2
769	Wearable Devices in Cardiovascular Medicine. Circulation Research, 2023, 132, 652-670.	2.0	18

#	ARTICLE	IF	CITATIONS
770	Camera-Based Short Physical Performance Battery and Timed Up and Go Assessment for Older Adults With Cancer. IEEE Transactions on Biomedical Engineering, 2023, 70, 2529-2539.	2.5	2
771	Review of developments in sensor technology for monitoring of health-related conditions. , 2023, , .		0
772	On the development of low power wearable devices for assessment of physiological vital parameters: a systematic review. Zeitschrift Fur Gesundheitswissenschaften, 0, , .	0.8	1
773	Insights into Non-Exercise Physical Activity on Control of Body Mass: A Review with Practical Recommendations. Journal of Functional Morphology and Kinesiology, 2023, 8, 44.	1.1	4
774	A Wearable Device for Detecting and Analyzing Gait Changes. , 2023, , .		0
776	Multisensor fusion sensor and improved Relief-F algorithms Based violence detection in schools. , 2023, , .		0
779	Violence Detection in Schools Based on Multi Fusion Sensor and Optimized Relief-F Algorithm. , 2023, , .		0
783	Mobile Devices, Connected Objects, and Sensors. Neuromethods, 2023, , 355-388.	0.2	0
784	A Review on Mood Assessment Using Smartphones. Lecture Notes in Computer Science, 2023, , 385-413.	1.0	0
787	Intelligent Vessels with Robotic Gesture Control. Journal of the Institution of Engineers (India): Series C, 0, , .	0.7	0
789	The Role of Multi-Sensor Measurement in the Assessment of Movement Quality: A Systematic Review. Sports Medicine, 0, , .	3.1	0
790	GaitTracker: A Digital Platform for Measuring, Detecting and Analyzing Gait Changes. , 2024, , 269-280.		0
791	Health 4.0, Prevention, and Health Promotion in Companies: A Systematic Literature Review. EAI/Springer Innovations in Communication and Computing, 2024, , 217-245.	0.9	0
795	Beyond Cognitive and Affective Issues: Designing Smart Learning Environments for Psychomotor Personalized Learning. , 2023, , 3309-3332.		0
798	How is Big Data reshaping preclinical aging research?. Lab Animal, 2023, 52, 289-314.	0.2	0
802	A New High-Precision Micro-Accelerometer Based on Optomechanical System. , 2023, , .		0
807	The correction system of student actions in the physical education classroom based on improved machine learning. , 2023, , .		0
808	AI Integrated With IoT System for Continuous Elderly Fall Detection Using SmartFallSentry System. Advances in Medical Diagnosis, Treatment, and Care, 2024, , 162-173.	0.1	0