Simon Steib

List of Publications by Year in Descending Order

231 papers	4,444 citations	32 h-index	58 g-index
257 ext. papers	5,898 ext. citations	3.5 avg, IF	5.94 L-index

#	Paper	IF	Citations
231	Human Activity Recognition based on the Fading characteristics of the On-body Channel. *IEEE Sensors Journal*, **2022**, 1-1	4	1
230	Heart Rate Measurement Accuracy of Fitbit Charge 4 and Samsung Galaxy Watch Active2: Device Evaluation Study.. *JMIR Formative Research*, **2022**, 6, e33635	2.5	0
229	Automated Video-Based Analysis Framework for Behavior Monitoring of Individual Animals in Zoos Using Deep Learning-A Study on Polar Bears.. *Animals*, **2022**, 12,	3.1	3
228	Wearable Sensors for Activity Recognition in Ultimate Frisbee Using Convolutional Neural Networks and Transfer Learning.. *Sensors*, **2022**, 22,	3.8	2
227	imucal - A Python library to calibrate 6 DOF IMUs. *Journal of Open Source Software*, **2022**, 7, 4338	5.2	
226	Smartphone-Based Colorimetric Analysis of Urine Test Strips for At-Home Prenatal Care. *IEEE Journal of Translational Engineering in Health and Medicine*, **2022**, 1-1	3	0
225	Validation of a Sensor-Based Gait Analysis System with a Gold-Standard Motion Capture System in Patients with Parkinson Disease. *Sensors*, **2021**, 21,	3.8	2
224	Security Engineering of Patient-Centered Health Care Information Systems in Peer-to-Peer Environments: Systematic Review. *Journal of Medical Internet Research*, **2021**, 23, e24460	7.6	1
223	Experimental Validation of Real-Time Ski Jumping Tracking System Based on Wearable Sensors. *Sensors*, **2021**, 21,	3.8	2
222	Detection of Unsupervised Standardized Gait Tests From Real-World Inertial Sensor Data in Parkinson Disease. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2021**, 29, 2103-2111	4.8	4
221	BioPsyKit: A Python package for the analysis of biopsychological data. *Journal of Open Source Software*, **2021**, 6, 3702	5.2	1
220	A Smart Capacitive Sensor Skin with Embedded Data Quality Indication for Enhanced Safety in Human-Robot Interaction. *Sensors*, **2021**, 21,	3.8	2
219	Characterization of gait variability in multiple system atrophy and Parkinson disease. *Journal of Neurology*, **2021**, 268, 1770-1779	5.5	3
218	The Impact of Avatar Appearance, Perspective and Context on Gait Variability and User Experience in Virtual Reality **2021**,		4
217	From the Laboratory to the Field: IMU-Based Shot and Pass Detection in Football Training and Game Scenarios Using Deep Learning. *Sensors*, **2021**, 21,	3.8	7
216	Electromyography for Teleoperated Tasks in Weightlessness. *IEEE Transactions on Human-Machine Systems*, **2021**, 51, 130-140	4.1	2
215	Assessing Visual Exploratory Activity of Athletes in Virtual Reality Using Head Motion Characteristics. *Sensors*, **2021**, 21,	3.8	3

214	Retrospective Analysis of Training and Its Response in Marathon Finishers Based on Fitness App Data. *Frontiers in Physiology*, **2021**, 12, 669884	4.6	1
213	Hidden Markov Model based stride segmentation on unsupervised free-living gait data in Parkinson disease patients. *Journal of NeuroEngineering and Rehabilitation*, **2021**, 18, 93	5.3	5
212	A Gamified Smartphone-Based Intervention for Depression: Randomized Controlled Pilot Trial. *JMIR Mental Health*, **2021**, 8, e16643	6	7
211	Heart rate variability predicts decline in sensorimotor rhythm control. *Journal of Neural Engineering* , **2021**, 18,	5	3
210	DeepSigns: A predictive model based on Deep Learning for the early detection of patient health deterioration. *Expert Systems With Applications*, **2021**, 165, 113905	7.8	10
209	Wearables-based multi-task gait and activity segmentation using recurrent neural networks. *Neurocomputing*, **2021**, 432, 250-261	5.4	11
208	Towards an IMU-based Pen Online Handwriting Recognizer. *Lecture Notes in Computer Science*, **2021**, 289-303	0.9	2
207	System Design for a Data-Driven and Explainable Customer Sentiment Monitor Using IoT and Enterprise Data. *IEEE Access*, **2021**, 9, 117140-117152	3.5	2
206	Acute exercise following skill practice promotes motor memory consolidation in Parkinson disease. *Neurobiology of Learning and Memory*, **2021**, 178, 107366	3.1	4
205	Combination of Defined CatWalk Gait Parameters for Predictive Locomotion Recovery in Experimental Spinal Cord Injury Rat Models. *ENeuro*, **2021**, 8,	3.9	5
204	Consensus based framework for digital mobility monitoring. *PLoS ONE*, **2021**, 16, e0256541	3.7	4
203	Monocular multi-person pose estimation: A survey. *Pattern Recognition*, **2021**, 118, 108046	7.7	2
202	Sex-Specific Differences in Running Injuries: A Systematic Review with Meta-Analysis and Meta-Regression. *Sports Medicine*, **2021**, 51, 1011-1039	10.6	15
201	3D Non-Rigid Alignment of Low-Dose Scans Allows to Correct for Saturation in Lower Extremity Cone-Beam CT. *IEEE Access*, **2021**, 9, 71821-71831	3.5	
200	Assessing Personality Traits of Team Athletes in Virtual Reality **2020**,		1
199	Effects of acute cardiovascular exercise on motor memory encoding and consolidation: A systematic review with meta-analysis. *Neuroscience and Biobehavioral Reviews*, **2020**, 116, 365-381	9	19
198	CNN-Based Estimation of Sagittal Plane Walking and Running Biomechanics From Measured and Simulated Inertial Sensor Data. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 604	5.8	16
197	Exploring Smart Agents for the Interaction with Multimodal Mediated Environments. *Multimodal Technologies and Interaction*, **2020**, 4, 27	1.7	3

196	The footprint of orthostatic hypotension in parkinsonian syndromes. *Parkinsonism and Related Disorders*, **2020**, 77, 107-109	3.6	1
195	: the smartphone application for telemonitoring Parkinson patients through speech, gait and hands movement. *Neurodegenerative Disease Management*, **2020**, 10, 137-157	2.8	4
194	Detection of Gait From Continuous Inertial Sensor Data Using Harmonic Frequencies. *IEEE Journal of Biomedical and Health Informatics*, **2020**, 24, 1869-1878	7.2	8
193	Gait variability as digital biomarker of disease severity in Huntington disease. *Journal of Neurology* , **2020**, 267, 1594-1601	5.5	8
192	Baptizo: A sensor fusion based model for tracking the identity of human poses. *Information Fusion*, **2020**, 62, 1-13	16.7	5
191	Robust Step Detection from Different Waist-Worn Sensor Positions: Implications for Clinical Studies. *Digital Biomarkers*, **2020**, 4, 50-58	7.1	4
190	Evaluation of HRV estimation algorithms from PPG data using neural networks. *Current Directions in Biomedical Engineering*, **2020**, 6, 505-509	0.5	3
189	Indoor Trajectory Reconstruction of Walking, Jogging, and Running Activities Based on a Foot-Mounted Inertial Pedestrian Dead-Reckoning System. *Sensors*, **2020**, 20,	3.8	4
188	Unobtrusive Estimation of In-Stroke Boat Rotation in Rowing Using Wearable Sensors. *Advances in Intelligent Systems and Computing*, **2020**, 114-122	0.4	
187	Evaluation of Foot Kinematics During Endurance Running on Different Surfaces in Real-World Environments. *Advances in Intelligent Systems and Computing*, **2020**, 106-113	0.4	1
186	Inertial Measurements for Motion Compensation in Weight-Bearing Cone-Beam CT of the Knee. *Lecture Notes in Computer Science*, **2020**, 14-23	0.9	0
185	The Use of Digital Technology and Media in German Parkinson Disease Patients. *Journal of Parkinson's Disease*, **2020**, 10, 717-727	5.3	6
184	Exercise Intensity Does not Modulate the Effect of Acute Exercise on Learning a Complex Whole-Body Task. *Neuroscience*, **2020**, 426, 115-128	3.9	7
183	Assessment of gait parameters and physical function in patients with advanced cancer participating in a 12-week exercise and nutrition programme: A controlled clinical trial. *European Journal of Cancer Care*, **2020**, 29, e13199	2.4	6
182	Predicting defibrillation success in out-of-hospital cardiac arrested patients: Moving beyond feature design. *Artificial Intelligence in Medicine*, **2020**, 110, 101963	7.4	4
181	Does the Position of Foot-Mounted IMU Sensors Influence the Accuracy of Spatio-Temporal Parameters in Endurance Running?. *Sensors*, **2020**, 20,	3.8	8
180	Application of artificial intelligence methods in vital signs analysis of hospitalized patients: A systematic literature review. *Applied Soft Computing Journal*, **2020**, 96, 106612	7.5	11
179	Efficient trajectory optimization for curved running using a 3D musculoskeletal model with implicit dynamics. *Scientific Reports*, **2020**, 10, 17655	4.9	6

178	Automatic clinical gait test detection from inertial sensor data. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2020**, 2020, 789-792	0.9	1
177	Simultaneous Indoor Pedestrian Localization and House Mapping Based on Inertial Measurement Unit and Bluetooth Low-Energy Beacon Data. *Sensors*, **2020**, 20,	3.8	4
176	Clinical Relevance of Standardized Mobile Gait Tests. Reliability Analysis Between Gait Recordings at Hospital and Home in Parkinson's Disease: A Pilot Study. *Journal of Parkinson's Disease*, **2020**, 10, 1763-1773	5.3	6
175	Digitizing Handwriting with a Sensor Pen: A Writer-Independent Recognizer **2020**,		3
174	Towards Classifying Cognitive Performance by Sensing Electrodermal Activity in Children With Specific Learning Disorders. *IEEE Access*, **2020**, 8, 196187-196196	3.5	0
173	Inertial sensor-based gait parameters reflect patient-reported fatigue in multiple sclerosis. *Journal of NeuroEngineering and Rehabilitation*, **2020**, 17, 165	5.3	8
172	Technical Validation of an Automated Mobile Gait Analysis System for Hereditary Spastic Paraplegia Patients. *IEEE Journal of Biomedical and Health Informatics*, **2020**, 24, 1490-1499	7.2	2
171	Fostering Natural Language Question Answering Over Knowledge Bases in Oncology EHR **2019**,		3
170	The Diagnostic Scope of Sensor-Based Gait Analysis in Atypical Parkinsonism: Further Observations. *Frontiers in Neurology*, **2019**, 10, 5	4.1	13
169	On Providing Multi-Level Quality of Service for Operating Rooms of the Future. *Sensors*, **2019**, 19,	3.8	2
168	Balance and mobility in geriatric patients : Assessment and treatment of neurological aspects. *Zeitschrift Fur Gerontologie Und Geriatrie*, **2019**, 52, 316-323	2.7	10
167	An Overview of the Feasibility of Permanent, Real-Time, Unobtrusive Stress Measurement with Current Wearables **2019**,		7
166	Hidden Markov Model-Based Smart Annotation for Benchmark Cyclic Activity Recognition Database Using Wearables. *Sensors*, **2019**, 19,	3.8	12
165	Optimal control simulation predicts effects of midsole materials on energy cost of running. *Computer Methods in Biomechanics and Biomedical Engineering*, **2019**, 22, 869-879	2.1	6
164	Perturbation Treadmill Training Improves Clinical Characteristics of Gait and Balance in Parkinson's Disease. *Journal of Parkinson's Disease*, **2019**, 9, 413-426	5.3	11
163	Exploring gait adaptations to perturbed and conventional treadmill training in Parkinson's disease: Time-course, sustainability, and transfer. *Human Movement Science*, **2019**, 64, 123-132	2.4	3
162	Multimodal Assessment of Parkinson's Disease: A Deep Learning Approach. *IEEE Journal of Biomedical and Health Informatics*, **2019**, 23, 1618-1630	7.2	59
161	Estimation of gait kinematics and kinetics from inertial sensor data using optimal control of musculoskeletal models. *Journal of Biomechanics*, **2019**, 95, 109278	2.9	31

160	Sick Moves! Motion Parameters as Indicators of Simulator Sickness. *IEEE Transactions on Visualization and Computer Graphics*, **2019**, 25, 3146-3157	4	5
159	Development and clinical validation of inertial sensor-based gait-clustering methods in Parkinson disease. *Journal of NeuroEngineering and Rehabilitation*, **2019**, 16, 77	5.3	13
158	Systematic data analysis and data mining in CatWalk gait analysis by heat mapping exemplified in rodent models for neurodegenerative diseases. *Journal of Neuroscience Methods*, **2019**, 326, 108367	3	6
157	Turning Analysis during Standardized Test Using On-Shoe Wearable Sensors in Parkinson Disease. *Sensors*, **2019**, 19,	3.8	16
156	Classification of Acute Stress-Induced Response Patterns **2019**,		1
155	Silhouette-Length-Scaled Gait Parameters for Motor Functional Analysis in Mice and Rats. *ENeuro*, **2019**, 6,	3.9	7
154	Objective sensor-based gait measures reflect motor impairment in multiple sclerosis patients: Reliability and clinical validation of a wearable sensor device. *Multiple Sclerosis and Related Disorders*, **2019**, 39, 101903	4	13
153	A Mobile Solution for Rhythmic Auditory Stimulation Gait Training. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2019**, 2019, 309-312	0.9	1
152	Automatic Orientation Estimation of Inertial Sensors in C-Arm CT Projections. *Current Directions in Biomedical Engineering*, **2019**, 5, 195-198	0.5	1
151	The Stroop Room: A Virtual Reality-Enhanced Stroop Test **2019**,		2
150	Unsupervised harmonic frequency-based gait sequence detection for Parkinson disease **2019**,		2
149	Interindividual Balance Adaptations in Response to Perturbation Treadmill Training in Persons With Parkinson Disease. *Journal of Neurologic Physical Therapy*, **2019**, 43, 224-232	4.1	6
148	Treadmill exercise intervention improves gait and postural control in alpha-synuclein mouse models without inducing cerebral autophagy. *Behavioural Brain Research*, **2019**, 363, 199-215	3.4	14
147	Toward analyzing mutual interference on infrared-enabled depth cameras. *Computer Vision and Image Understanding*, **2019**, 178, 1-15	4.3	4
146	Ankle angle variability during running in athletes with chronic ankle instability and copers. *Gait and Posture*, **2019**, 68, 329-334	2.6	5
145	A Survey of Sensors in Healthcare Workflow Monitoring. *ACM Computing Surveys*, **2018**, 51, 1-37	13.4	13
144	Promoting relaxation using virtual reality, olfactory interfaces and wearable EEG **2018**,		24
143	Dynamic footprint based locomotion sway assessment in synucleinopathic mice using Fast Fourier Transform and Low Pass Filter. *Journal of Neuroscience Methods*, **2018**, 296, 1-11	3	10

142	Unobtrusive and wearable landing momentum estimation in Ski jumping with inertial-magnetic sensors **2018**,		3
141	Motor output complexity in Parkinson□ disease during quiet standing and walking: Analysis of short-term correlations using the entropic half-life. *Human Movement Science*, **2018**, 58, 185-194	2.4	7
140	Mobile Stride Length Estimation With Deep Convolutional Neural Networks. *IEEE Journal of Biomedical and Health Informatics*, **2018**, 22, 354-362	7.2	59
139	Self-Powered Multiparameter Health Sensor. *IEEE Journal of Biomedical and Health Informatics*, **2018**, 22, 15-22	7.2	6
138	Dynamic footprints of □synucleinopathic mice recorded by CatWalk gait analysis. *Data in Brief*, **2018**, 17, 189-193	1.2	4
137	Segmentation of Gait Sequences in Sensor-Based Movement Analysis: A Comparison of Methods in Parkinson□ Disease. *Sensors*, **2018**, 18,	3.8	33
136	Tactile Myography: An Off-Line Assessment of Able-Bodied Subjects and One Upper-Limb Amputee. *Technologies*, **2018**, 6, 38	2.4	6
135	Assessment of Perceptual-Cognitive Abilities among Athletes in Virtual Environments **2018**,		8
134	Sensor-based gait analysis in atypical parkinsonian disorders. *Brain and Behavior*, **2018**, 8, e00977	3.4	28
133	Internet of Health Things: Toward intelligent vital signs monitoring in hospital wards. *Artificial Intelligence in Medicine*, **2018**, 89, 61-69	7.4	97
132	A Novel Mobile Phone App (OncoFood) to Record and Optimize the Dietary Behavior of Oncologic Patients: Pilot Study. *JMIR Cancer*, **2018**, 4, e10703	3.2	9
131	ECG derived feature combination versus single feature in predicting defibrillation success in out-of-hospital cardiac arrested patients. *Biomedical Physics and Engineering Express*, **2018**, 5, 015012	1.5	2
130	Human Activity Recognition Using Binary Sensors, BLE Beacons, an Intelligent Floor and Acceleration Data: A Machine Learning Approach. *Proceedings (mdpi)*, **2018**, 2, 1265	0.3	4
129	A Single Bout of Aerobic Exercise Improves Motor Skill Consolidation in Parkinson□ Disease. *Frontiers in Aging Neuroscience*, **2018**, 10, 328	5.3	18
128	Comparison of Different Algorithms for Calculating Velocity and Stride Length in Running Using Inertial Measurement Units. *Sensors*, **2018**, 18,	3.8	18
127	Thigh-Derived Inertial Sensor Metrics to Assess the Sit-to-Stand and Stand-to-Sit Transitions in the Timed Up and Go (TUG) Task for Quantifying Mobility Impairment in Multiple Sclerosis. *Frontiers in Neurology*, **2018**, 9, 684	4.1	17
126	Smart Annotation Tool for Multi-sensor Gait-based Daily Activity Data **2018**,		2
125	Evaluation of Interaction Techniques for a Virtual Reality Reading Room in Diagnostic Radiology **2018**,		5

124	Sensor-based gait analysis of individualized improvement during apomorphine titration in Parkinson's disease. *Journal of Neurology*, **2018**, 265, 2656-2665	5.5	12
123	Pre-operative sensor-based gait parameters predict functional outcome after total knee arthroplasty. *Gait and Posture*, **2018**, 66, 194-200	2.6	14
122	Feasibility of Motion Compensation using Inertial Measurement in C-arm CT **2018**,		2
121	Kinematic parameter evaluation for the purpose of a wearable running shoe recommendation **2018** ,		2
120	Salivary Markers for Quantitative Dehydration Estimation During Physical Exercise. *IEEE Journal of Biomedical and Health Informatics*, **2017**, 21, 1306-1314	7.2	2
119	Activity recognition in beach volleyball using a Deep Convolutional Neural Network. *Data Mining and Knowledge Discovery*, **2017**, 31, 1678-1705	5.6	68
118	Reference-Free Adjustment of Respiratory Inductance Plethysmography for Measurements during Physical Exercise. *IEEE Transactions on Biomedical Engineering*, **2017**, 64, 2836-2846	5	5
117	Speed dependent effects of laterally wedged insoles on gait biomechanics in healthy subjects. *Gait and Posture*, **2017**, 55, 145-149	2.6	11
116	Classification and visualization of skateboard tricks using wearable sensors. *Pervasive and Mobile Computing*, **2017**, 40, 42-55	3.5	24
115	Diving Into Research of Biomedical Engineering in Scuba Diving. *IEEE Reviews in Biomedical Engineering*, **2017**, 10, 323-333	6.4	14
114	Instrumented gait analysis: a measure of gait improvement by a wheeled walker in hospitalized geriatric patients. *Journal of NeuroEngineering and Rehabilitation*, **2017**, 14, 18	5.3	30
113	Generic performance measure for multiclass-classifiers. *Pattern Recognition*, **2017**, 68, 111-125	7.7	35
112	Sensor-Based Gait Parameter Extraction With Deep Convolutional Neural Networks. *IEEE Journal of Biomedical and Health Informatics*, **2017**, 21, 85-93	7.2	94
111	Letter to the Editor regarding "Gait recording with inertial sensors - How to determine initial and terminal contact" by Bötzel and colleagues. *Journal of Biomechanics*, **2017**, 52, 183-184	2.9	
110	Ball speed and spin estimation in table tennis using a racket-mounted inertial sensor **2017**,		8
109	Wearable sensors objectively measure gait parameters in Parkinson's disease. *PLoS ONE*, **2017**, 12, e0183989	3.7	148
108	Towards Mobile Gait Analysis: Concurrent Validity and Test-Retest Reliability of an Inertial Measurement System for the Assessment of Spatio-Temporal Gait Parameters. *Sensors*, **2017**, 17,	3.8	76
107	Perturbation During Treadmill Training Improves Dynamic Balance and Gait in Parkinson's Disease: A Single-Blind Randomized Controlled Pilot Trial. *Neurorehabilitation and Neural Repair*, **2017**, 31, 758-768	4.7	17

106	Three-Dimensional Biomechanical Analysis of Rearfoot and Forefoot Running. *Orthopaedic Journal of Sports Medicine*, **2017**, 5, 2325967117719065	3.5	13
105	Comparison of Different Approaches for Measuring Tibial Cartilage Thickness. *Journal of Integrative Bioinformatics*, **2017**, 14,	3.8	9
104	Quantifying postural instability in Parkinsonian gait from inertial sensor data during standardised clinical gait tests **2017**,		2
103	Segmentation of gait sequences using inertial sensor data in hereditary spastic paraplegia. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2017**, 2017, 1266-1269	0.9	3
102	Benchmarking Foot Trajectory Estimation Methods for Mobile Gait Analysis. *Sensors*, **2017**, 17,	3.8	13
101	Smart Annotation of Cyclic Data Using Hierarchical Hidden Markov Models. *Sensors*, **2017**, 17,	3.8	12
100	An Overview of Smart Shoes in the Internet of Health Things: Gait and Mobility Assessment in Health Promotion and Disease Monitoring. *Applied Sciences (Switzerland)*, **2017**, 7, 986	2.6	60
99	Wearable Current-Based ECG Monitoring System with Non-Insulated Electrodes for Underwater Application. *Applied Sciences (Switzerland)*, **2017**, 7, 1277	2.6	9
98	Acute Neuromuscular Adaptations in the Postural Control of Patients with Parkinson Disease after Perturbed Walking. *Frontiers in Aging Neuroscience*, **2017**, 9, 316	5.3	8
97	Gait and Cognition in Parkinson Disease: Cognitive Impairment Is Inadequately Reflected by Gait Performance during Dual Task. *Frontiers in Neurology*, **2017**, 8, 550	4.1	16
96	Privacy Implications of Room Climate Data. *Lecture Notes in Computer Science*, **2017**, 324-343	0.9	5
95	A Temperature-Based Bioimpedance Correction for Water Loss Estimation During Sports. *IEEE Journal of Biomedical and Health Informatics*, **2016**, 20, 1477-1484	7.2	4
94	An approximation of the Gaussian RBF kernel for efficient classification with SVMs. *Pattern Recognition Letters*, **2016**, 84, 107-113	4.7	47
93	Immediate effects of perturbation treadmill training on gait and postural control in patients with Parkinson disease. *Gait and Posture*, **2016**, 50, 102-108	2.6	28
92	Instantaneous P- and T-wave detection: Assessment of three ECG fiducial points detection algorithms **2016**,		5
91	Ball impact localization on table tennis rackets using piezo-electric sensors **2016**,		9
90	Combined accelerometer and EMG analysis to differentiate essential tremor from Parkinson disease. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 672-675	0.9	12
89	Workshop on wearables for sports **2016**,		4

88	Inertial sensor based gait analysis discriminates subjects with and without visual impairment caused by simulated macular degeneration. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 4979-4982	0.9	4
87	Smart soccer shoe **2016**,		28
86	Time-dependent postural control adaptations following a neuromuscular warm-up in female handball players: a randomized controlled trial. *BMC Sports Science, Medicine and Rehabilitation*, **2016**, 8, 33	2.4	13
85	Virtual and augmented reality in sports **2016**,		18
84	Recent machine learning advancements in sensor-based mobility analysis: Deep learning for Parkinson's disease assessment. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 655-658	0.9	73
83	Blood glucose level prediction based on support vector regression using mobile platforms. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 2990-2993	0.9	20
82	Your personal movie producer **2016**,		4
81	Translating satisfaction determination from health care to the automotive industry. *Service Business*, **2016**, 10, 651-685	3.9	7
80	Approaching the accuracy–cost conflict in embedded classification system design. *Pattern Analysis and Applications*, **2016**, 19, 839-855	2.3	13
79	Automatic clustering of code changes **2016**,		14
78	Quantification of Nighttime Micturition With an Ambulatory Sensor-Based System. *IEEE Journal of Biomedical and Health Informatics*, **2016**, 20, 865-872	7.2	5
77	Unobtrusive and Energy-Efficient Swimming Exercise Tracking Using On-Node Processing. *IEEE Sensors Journal*, **2016**, 16, 3972-3980	4	12
76	Analog non-linear transformation-based tone mapping for image enhancement in C-arm CT **2016**,		4
75	Technology in Parkinson's disease: Challenges and opportunities. *Movement Disorders*, **2016**, 31, 1272-1282	7	305
74	Effects of Exercise Therapy on Postural Instability in Parkinson Disease: A Meta-analysis. *Journal of Neurologic Physical Therapy*, **2016**, 40, 3-14	4.1	55
73	miPod 2 **2016**,		2
72	Blind path obstacle detector using smartphone camera and line laser emitter **2016**,		5
71	Detection of fetal kicks using body-worn accelerometers during pregnancy: Trade-offs between sensors number and positioning. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 5319-5322	0.9	12

70	Wearable trick classification in freestyle snowboarding **2016**,		16
69	A multimodal approach to ankle instability: Interrelations between subjective and objective assessments of ankle status in athletes. *Journal of Orthopaedic Research*, **2016**, 34, 525-32	3.8	17
68	Unobtrusive real-time heart rate variability analysis for the detection of orthostatic dysregulation **2016**,		2
67	Wearable Real-Time Skateboard Trick Visualization and Its Community Perception. *IEEE Computer Graphics and Applications*, **2016**, 36, 12-18	1.7	10
66	A robust Kalman framework with resampling and optimal smoothing. *Sensors*, **2015**, 15, 4975-95	3.8	6
65	Inertial sensor-based stride parameter calculation from gait sequences in geriatric patients. *IEEE Transactions on Biomedical Engineering*, **2015**, 62, 1089-97	5	168
64	Stride segmentation during free walk movements using multi-dimensional subsequence dynamic time warping on inertial sensor data. *Sensors*, **2015**, 15, 6419-40	3.8	126
63	**2015**,		2
62	Effect of walking speed on gait sub phase durations. *Human Movement Science*, **2015**, 43, 118-24	2.4	40
61	Optimal feature selection for nonlinear data using branch-and-bound in kernel space. *Pattern Recognition Letters*, **2015**, 68, 56-62	4.7	3
60	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, 1873-81	7.2	179
59	A wearable real-time activity tracker. *Biomedical Engineering Letters*, **2015**, 5, 147-157	3.6	6
58	Scalable ECG hardware and algorithms for extended runtime of wearable sensors **2015**,		8
57	Novel human computer interaction principles for cardiac feedback using google glass and Android wear **2015**,		4
56	A framework for early event detection for wearable systems **2015**,		4
55	Human authentication implemented for mobile applications based on ECG-data acquired from sensorized garments **2015**,		3
54	Sensor-based stroke detection and stroke type classification in table tennis **2015**,		32
53	Fast T Wave Detection Calibrated by Clinical Knowledge with Annotation of P and T Waves. *Sensors*, **2015**, 15, 17693-714	3.8	30

52	Data mining in the U.S. National Toxicology Program (NTP) database reveals a potential bias regarding liver tumors in rodents irrespective of the test agent. *PLoS ONE*, **2015**, 10, e0116488	3.7	8
51	Task-Dependent Intermuscular Motor Unit Synchronization between Medial and Lateral Vastii Muscles during Dynamic and Isometric Squats. *PLoS ONE*, **2015**, 10, e0142048	3.7	17
50	Temporal correction of detected R-peaks in ECG signals: A crucial step to improve QRS detection algorithms. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 522-5	0.9	4
49	Filter and processing method to improve R-peak detection for ECG data with motion artefacts from wearable systems **2015**,		2
48	On sweat analysis for quantitative estimation of dehydration during physical exercise. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 7011-4	0.9	2
47	Pull Test estimation in Parkinson disease patients using wearable sensor technology. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 3109-12	0.9	14
46	Timed Up-and-Go phase segmentation in Parkinson disease patients using unobtrusive inertial sensors. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 5171-4	0.9	14
45	Inertial sensor based and shoe size independent gait analysis including heel and toe clearance estimation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 5424-7	0.9	22
44	Unobtrusive heart rate estimation during physical exercise using photoplethysmographic and acceleration data. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 6114-7	0.9	9
43	Sampling rate impact on energy consumption of biomedical signal processing systems **2015**,		7
42	Using wearable sensors for semiology-independent seizure detection - towards ambulatory monitoring of epilepsy. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 5593-6	0.9	11
41	Wearable real-time ecg monitoring with emergency alert system for scuba diving. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 6074-7	0.9	7
40	An IMU-based mobile system for golf putt analysis. *Sports Engineering*, **2015**, 18, 123-133	1.4	13
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