Citation Report
List of articles citing

Gait analysis using wearable sensors

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#	Paper	IF	Citations
754	Inertial sensor-based methods in walking speed estimation: a systematic review. *Sensors*, **2012**, 12, 6102-16	3.8	125
753	Slope estimation during normal walking using a shank-mounted inertial sensor. *Sensors*, **2012**, 12, 11910-21	3.8	4
752	Analysis of continuous steering movement using a motor-based quantification system. *Sensors*, **2012**, 12, 16008-23	3.8	2
751	Design and test of a soft plantar force measurement system for gait detection. *Sensors*, **2012**, 12, 16628-48	3.8	7
750	Fuzzy estimation system on gait independence level by footprint dynamics. **2012**,		1
749	Seven capital devices for the future of stroke rehabilitation. **2012**, 2012, 187965		63
748	Analytical Survey of Wearable Sensors. **2012**,		7
747	Plantar pressure distribution in a hyperpronated foot before and after intervention with an extraosseous talotarsal stabilization device-a retrospective study. **2013**, 52, 432-43		8
746	Evaluation of a modified Brostrm-Gould procedure for treatment of chronic lateral ankle instability: A retrospective study with critical analysis of outcome scoring. **2013**, 19, 36-41		36
745	High-Performance Interface Electronic System for a 13 $,times,$13 Flexible Biomechanical Ground Reaction Sensor Array Achieving a Gait Ground Velocity Resolution of 100 $mu{rm m/sec}$. **2013**, 13, 4496-4505		4
744	A novel wireless motion sensor for analyzing golf swing. **2013**,		3
743	Real-time human ambulation, activity, and physiological monitoring: taxonomy of issues, techniques, applications, challenges and limitations. *Sensors*, **2013**, 13, 12852-902	3.8	83
742	Design and test of a hybrid foot force sensing and GPS system for richer user mobility activity recognition. *Sensors*, **2013**, 13, 14918-53	3.8	4
741	Human Walking Pattern Recognition Based on KPCA and SVM with Ground Reflex Pressure Signal. **2013**, 2013, 1-12		9
740	Inertial sensor-based two feet motion tracking for gait analysis. *Sensors*, **2013**, 13, 5614-29	3.8	37
739	Design of a wearable sensing system for human motion monitoring in physical rehabilitation. *Sensors*, **2013**, 13, 7735-55	3.8	24
738	A multifunctional joint angle sensor with measurement adaptability. *Sensors*, **2013**, 13, 15274-89	3.8	7

737	Wireless prototype based on pressure and bending sensors for measuring gait [corrected] quality. *Sensors*, **2013**, 13, 9679-703	3.8	13
736	Assessing the impact of fatigue on gait using inertial sensors. **2013**,		0
735	Multimodal + multimedia + sensors = pleasant interfaces. **2013**,		
734	Ambulatory Monitoring of Physical Activity Based on Knee Flexion/Extension Measured by Inductive Sensor Technology. **2013**, 2013, 1-10		6
733	SmartStep: A Fully Integrated, Low-Power Insole Monitor. **2014**, 3, 381-397		32
732	An Instrumented Insole System for Gait Monitoring and Analysis. **2014**, 10, 30		2
731	A Flexible Wearable Sensor Network for Bio-Signals and Human Activity Monitoring. **2014**,		4
730	Interest lower body point's detection for markerless gait analysis. **2014**,		
729	Wearable Inertial Sensors and Their Applications. **2014**, 85-104		9
728	Gait analysis methods: an overview of wearable and non-wearable systems, highlighting clinical applications. *Sensors*, **2014**, 14, 3362-94	3.8	541
727	Estimation of spatial-temporal gait parameters using a low-cost ultrasonic motion analysis system. *Sensors*, **2014**, 14, 15434-57	3.8	13
726	Estimating orientation using magnetic and inertial sensors and different sensor fusion approaches: accuracy assessment in manual and locomotion tasks. *Sensors*, **2014**, 14, 18625-49	3.8	158
725	Sensor saturation compensated smoothing algorithm for inertial sensor based motion tracking. *Sensors*, **2014**, 14, 8167-88	3.8	4
724	Continuous monitoring of turning in patients with movement disability. *Sensors*, **2013**, 14, 356-69	3.8	152
723	An ambulatory method of identifying anterior cruciate ligament reconstructed gait patterns. *Sensors*, **2014**, 14, 887-99	3.8	35
722	Patient-centric on-body sensor localization in smart health systems. **2014**,		14
721	Knee. **2014**,		5
720	Integrated measurement system for amputee gait analysis: A pilot study. **2014**,		3

719	Walking Behavior Change Detector for a Smart Walker. **2014**, 39, 43-50	6
718	A study of position independent algorithms for phone-based gait frequency detection. **2014**, 2014, 5984-7	1
717	A study of gait acceleration and synchronisation in healthy adult subjects. **2014**, 17, 1542-52	3
716	Estimation of pelvis kinematics in level walking based on a single inertial sensor positioned close to the sacrum: validation on healthy subjects with stereophotogrammetric system. **2014**, 13, 146	27
715	A portable system with sample rate of 250 Hz for characterization of knee and hip angles in the sagittal plane during gait. **2014**, 13, 34	3
714	Integration Frequency Response of Human Dynamic Anterior-Posterior Balance under Passive Motion Stimulus. **2014**, 644-650, 3956-3959	
713	Classification accuracy of a single tri-axial accelerometer for training background and experience level in runners. **2014**, 47, 2508-11	21
712	Biomechanical assessment of human posture: a literature review. **2014**, 18, 368-73	21
711	Assessment of applicability of robotic walker for post-stroke hemiparetic individuals through muscle pattern analysis. **2014**,	
710	Energy Harvesting system for smart shoes. **2014**,	11
709	Improved Use of Foot Force Sensors and Mobile Phone GPS for Mobility Activity Recognition. **2014**, 14, 4340-4347	29
708	Sensing Technologies for Biomedical Telemetry. **2014**, 76-107	1
707	A fuzzy logic system tuned with particle swarm optimization for gait segmentation using insole measured ground reaction force. **2014**,	1
706	An Accurate Wireless Data Transmission and Low Power Consumption of Foot Plantar Pressure Measurements. **2015**, 76, 302-307	1
705	. **2015**,	4
704	Feature reduction with PCA/KPCA for gait classification with different assistive devices. **2015**, 8, 363-382	2
703	Towards Automatic Gait Assessment by Means of RGB-D Mocap. **2015**,	3
702	Foot pronation monitoring using wireless biaxial force sensing system. **2015**,	2

701	Frailty assessment based on trunk kinematic parameters during walking. **2015**, 12, 48		31
700	Validation and reliability testing of a new, fully integrated gait analysis insole. **2015**, 8, 54		46
699	Medical Virtual Instrumentation for Ambient Assisted Living: Part 1 Concepts. **2015**, 48, 167-177		3
698	Detection of gait impairment in the elderly using patch-GEI. **2015**, 10, S69-S76		6
697	Foot Pose Estimation Using an Inertial Sensor Unit and Two Distance Sensors. *Sensors*, **2015**, 15, 15888-908	3.8	17
696	Keeping a Good Attitude: A Quaternion-Based Orientation Filter for IMUs and MARGs. *Sensors*, **2015**, 15, 19302-30	3.8	163
695	An energy-efficient underground localization system based on heterogeneous wireless networks. *Sensors*, **2015**, 15, 12358-76	3.8	9
694	Inertial Sensor-Based Gait Recognition: A Review. *Sensors*, **2015**, 15, 22089-127	3.8	177
693	How Angular Velocity Features and Different Gyroscope Noise Types Interact and Determine Orientation Estimation Accuracy. *Sensors*, **2015**, 15, 23983-4001	3.8	33
692	A Neural Network-Based Gait Phase Classification Method Using Sensors Equipped on Lower Limb Exoskeleton Robots. *Sensors*, **2015**, 15, 27738-59	3.8	74
691	One Small Step for a Man: Estimation of Gender, Age and Height from Recordings of One Step by a Single Inertial Sensor. *Sensors*, **2015**, 15, 31999-2019	3.8	37
690	Gait Biomechanics and Patient-Reported Function as Predictors of Response to a Hip Strengthening Exercise Intervention in Patients with Knee Osteoarthritis. **2015**, 10, e0139923		28
689	Assessment of Knee Cartilage Stress Distribution and Deformation Using Motion Capture System and Wearable Sensors for Force Ratio Detection. **2015**, 2015, 963746		3
688	3D analysis system for estimating intersegmental forces and moments exerted on human lower limbs during walking motion. **2015**, 73, 171-179		10
687	A Novel Kalman Filter for Human Motion Tracking With an Inertial-Based Dynamic Inclinometer. **2015**, 62, 2033-43		111
686	Movement recognition technology as a method of assessing spontaneous general movements in high risk infants. **2014**, 5, 284		72
685	Real-time gait assessment with an active depth sensor placed in a walker. **2015**,		5
684	Pace independent mobile gait biometrics. **2015**,		20

683	Methodology for automatic movement cycle extraction using Switching Linear Dynamic System. **2015**,		1
682	Nouvelles techniques de quantification de la marche applicables en pratique clinique. **2015**, 6, 282-292		
681	Predicting Complete Ground Reaction Forces and Moments During Gait With Insole Plantar Pressure Information Using a Wavelet Neural Network. **2015**, 137,		20
680	Multiple gait patterns within the same Winters class in children with hemiplegic cerebral palsy. **2015**, 30, 908-14		30
679	Information and communications technologies for elderly ubiquitous healthcare in a smart home. **2015**, 19, 573-599		136
678	Understanding the effects of pre-processing on extracted signal features from gait accelerometry signals. **2015**, 62, 164-74		19
677	Wearable sensor systems for infants. *Sensors*, **2015**, 15, 3721-49	3.8	106
676	A wearable smartphone-enabled camera-based system for gait assessment. **2015**, 42, 138-44		22
675	Tactile sensing in human□omputer interfaces: The inclusion of pressure sensitivity as a third dimension of user input. **2015**, 232, 229-250		15
674	Accuracy of a custom physical activity and knee angle measurement sensor system for patients with neuromuscular disorders and gait abnormalities. *Sensors*, **2015**, 15, 10734-52	3.8	22
673	Design, fabrication and metrological evaluation of wearable pressure sensors. **2015**, 39, 208-15		3
672	Acoustic Gaits: Gait Analysis With Footstep Sounds. **2015**, 62, 2001-11		21
671	Ambulatory Estimation of Relative Foot Positions by Fusing Ultrasound and Inertial Sensor Data. **2015**, 23, 817-26		36
670	Analysis and selection of the Force Sensitive Resistors for gait characterisation. **2015**,		7
669	Smart textiles for wearable sensor networks: Review and early lessons. **2015**,		12
668	Low-cost wearable measurement system for continuous real-time pedobarography. **2015**,		3
667	Low power wearable system for vital signs measurement in all day long applications. **2015**,		3
666	Toward Automating Clinical Assessments: A Survey of the Timed Up and Go. **2015**, 8, 64-77		83

665	An Emerging Era in the Management of Parkinson's Disease: Wearable Technologies and the Internet of Things. **2015**, 19, 1873-81		179
664	Fracture healing redefined. **2015**, 85, 940-3		4
663	Changes in gait performance over several years are associated with recurrent falls status in community-dwelling older women at high risk of fracture. **2015**, 44, 287-93		15
662	Recent Advances in Wearable Sensors for Health Monitoring. **2015**, 15, 3119-3126		193
661	Ambulatory measurement of three-dimensional foot displacement during treadmill walking using wearable wireless ultrasonic sensor network. **2015**, 19, 446-52		25
660	On Gait Analysis Estimation Errors Using Force Sensors on a Smart Rollator. *Sensors*, **2016**, 16,	3.8	8
659	Implementation and Analysis of ISM 2.4 GHz Wireless Sensor Network Systems in Judo Training Venues. *Sensors*, **2016**, 16,	3.8	7
658	Comparison of Forward and Backward Walking Trainings on Gait Pattern in Adults. **2016**, 9,		1
657	Human Activity Recognition in AAL Environments Using Random Projections. **2016**, 2016, 4073584		49
656	Evaluating physical function and activity in the elderly patient using wearable motion sensors. **2016**, 1, 112-120		36
655	A Technological Review of the Instrumented Footwear for Rehabilitation with a Focus on Parkinson's Disease Patients. **2016**, 7, 1		46
654	Last Advances in Silicon-Based Optical Biosensors. *Sensors*, **2016**, 16, 285	3.8	124
653	Stride Counting in Human Walking and Walking Distance Estimation Using Insole Sensors. *Sensors*, **2016**, 16,	3.8	31
652	Sensor Fusion and Smart Sensor in Sports and Biomedical Applications. *Sensors*, **2016**, 16,	3.8	52
651	An IMU-to-Body Alignment Method Applied to Human Gait Analysis. *Sensors*, **2016**, 16,	3.8	51
650	Load Vector Sensors Using Strain-Sensitive Cr-N Thin Films and Their Applications. **2016**, 99, 58-67		2
649	Wireless Sensors Integration for Bend Angle and Distance Rate of Gait Measurement. **2016**,		
648	Live-feedback from the IMUs. **2016**,		7

647	Automated classification of pathological gait after stroke using ubiquitous sensing technology. **2016**, 2016, 6150-6153	7
646	A self-decoupling piezoresistive sensor for measuring microforce in horizontal and vertical directions. **2016**, 26, 095019	2
645	. **2016**,	
644	Deepmotion: a deep convolutional neural network on inertial body sensors for gait assessment in multiple sclerosis*. **2016**,	16
643	Optical Based Noninvasive Glucose Monitoring Sensor Prototype. **2016**, 8, 1-11	54
642	Development of a planar shear sensor. **2016**, 2016, 2030-2033	1
641	AW-ELM-based Crouch Gait recognition after ischemic stroke. **2016**,	
640	Prehospital Spinal Immobilization: Effect of Effort on Kinematics of Voluntary Head-neck Motion Assessed using Accelerometry. **2016**, 31, 36-42	9
639	GAIT ANALYSIS: SYSTEMS, TECHNOLOGIES, AND IMPORTANCE. **2016**, 16, 1630003	21
638	Quantitative assessment of lower limb and cane movement with wearable inertial sensors. **2016**,	8
637	Causality Analysis of Inertial Body Sensors for Multiple Sclerosis Diagnostic Enhancement. **2016**, 20, 1273-80	12
636	Use of accelerometer for walk-run or shot analysis for sport and rehabilitation purposes. **2016**,	
635	A Low Cost Alternative to Monitor Human Gait Temporal Parameters Wearable Wireless Gyroscope. **2016**, 16, 9029-9035	28
634	Stretchable Multichannel Electromyography Sensor Array Covering Large Area for Controlling Home Electronics with Distinguishable Signals from Multiple Muscles. **2016**, 8, 21070-6	29
633	Different horse's paces during hippotherapy on spatio-temporal parameters of gait in children with bilateral spastic cerebral palsy: A feasibility study. **2016**, 59, 65-72	11
632	Wearable sensors for gait pattern examination in glaucoma patients. **2016**, 46, 67-74	4
631	. **2016**, 16, 8823-8831	31
630	. **2016**,	4

629	A Gait Analysis Approach to Track Parkinson's Disease Evolution Using Principal Component Analysis. **2016**,	9
628	A wearable sensor system for lower-limb rehabilitation evaluation using the GRF and CoP distributions. **2016**, 27, 025701	3
627	Reliability of gait analysis using wearable sensors in patients with knee osteoarthritis. **2016**, 49, 3977-3982	17
626	Algorithm for 3D orientation estimation based on Kalman Filter and Gradient Descent. **2016**,	7
625	Smart m-Health Sensing. **2016**, 23-66	
624	Kinematic Analysis of Human Gait Based on Wearable Sensor System for Gait Rehabilitation. **2016**, 36, 843-856	14
623	A simple smoother for attitude and position estimation using inertial sensor. **2016**, 14, 1626-1630	6
622	A novel method to assess angle sensor performance for wearable exoskeletal joint kinematics. **2016**, 2016, 3109-3112	3
621	Comparison of inertial sensor data from the wrist and mid-lower back during a 2-minute walk test. **2016**,	0
620	Feasibility of a Simplified, Clinically Oriented, Three-dimensional Gait Analysis System for the Gait Evaluation of Stroke Patients. **2016**, 1, 20160001	4
619	Analyse quantifi de la marche. **2016**, 7-21	2
618	. **2016**, 16, 6406-6415	13
617	Smart and wearable wireless sensors: Scenario analysis and communication issues. **2016**,	1
616	Printable skin adhesive stretch sensor for measuring multi-axis human joint angles. **2016**,	15
615	Patients evaluation based on digital motion acquisition. **2016**, 13, 808-815	2
614	Using an inertial navigation algorithm and accelerometer to monitor chest compression depth during cardiopulmonary resuscitation. **2016**, 38, 1028-34	2
613	Body Tracking in Healthcare. **2016**, 5, 1-151	5
612	Autonomous Wearable System for Vital Signs Measurement With Energy-Harvesting Module. **2016**, 65, 1423-1434	60

611	Missing Sample Recovery for Wireless Inertial Sensor-Based Human Movement Acquisition. **2016**, 24, 1191-1198	11
610	Validity of an inertial measurement unit to assess pelvic orientation angles during gait, sit-stand transfers and step-up transfers: Comparison with an optoelectronic motion capture system. **2016**, 38, 225-31	63
609	Wearable sensor-based objective assessment of motor symptoms in Parkinson's disease. **2016**, 123, 57-64	87
608	Assessment of Foot Trajectory for Human Gait Phase Detection Using Wireless Ultrasonic Sensor Network. **2016**, 24, 88-97	46
607	Combining discriminative spatiotemporal features for daily life activity recognition using wearable motion sensing suit. **2017**, 20, 1179-1194	13
606	Optical Fiber Sensors in IoT. **2017**, 73-86	4
605	A wrist sensor and algorithm to determine instantaneous walking cadence and speed in daily life walking. **2017**, 55, 1773-1785	29
604	Wearable Medical Sensor-Based System Design: A Survey. **2017**, 3, 124-138	69
603	Development of an inertial motion capture system for kinematic analysis of ski jumping. **2017**, 231, 275-286	5
602	Classification of Three Types of Walking Activities Regarding Stairs Using Plantar Pressure Sensors. **2017**, 17, 2638-2639	28
601	Microsoft Kinect can distinguish differences in over-ground gait between older persons with and without Parkinson's disease. **2017**, 44, 1-7	49
600	Computational gait analysis using fuzzy logic for everyday clinical purposes □preliminary findings. **2017**, 13,	3
599	Robotic and Sensor Technologies for Mobility in Older People. **2017**, 20, 401-410	11
598	Rapid Fabrication of Flexible and Stretchable Strain Sensor by Chitosan-Based Water Ink for Plants Growth Monitoring. **2017**, 2, 1700021	35
597	Optical-Based Sensor Prototype for Continuous Monitoring of the Blood Pressure. **2017**, 17, 4258-4268	13
596	Wearable Flexible Sensors: A Review. **2017**, 17, 3949-3960	259
595	Estimation of 3D Ground Reaction Force Using Nanocomposite Piezo-Responsive Foam Sensors During Walking. **2017**, 45, 2122-2134	19
594	Application of Digital Human Models to Physiotherapy Training. **2017**, 17,	2

593	Powered knee orthosis for human gait rehabilitation: First advances. **2017**,	1
592	. **2017**,	8
591	HorseRider Interaction: A New Method Based on Inertial Measurement Units. **2017**, 55, 1-8	13
590	Experimental Characterization of Human Walking on Stairs Applied to Humanoid Dynamics. **2017**, 293-301	12
589	Transparency enhancement for an active knee orthosis by a constraint-free mechanical design and a gait phase detection based predictive control. **2017**, 52, 729-748	3
588	Movement Disorders Rehabilitation. **2017**,	1
587	Detecting free-living steps and walking bouts: validating an algorithm for macro gait analysis. **2017**, 38, N1-N15	64
586	Future Perspectives: Assessment Tools and Rehabilitation in the New Age. **2017**, 155-182	1
585	The application of inertial measurements unit for the clinical evaluation and assessment of gait events. **2017**, 41, 612-622	5
584	Real-time gait analysis with accelerometer-based smart shoes. **2017**, 2017, 148-148c	12
583	A Solution-Processable, Omnidirectionally Stretchable, and High-Pressure-Sensitive Piezoresistive Device. **2017**, 29, 1703004	52
582	Gait phase detection from thigh kinematics using machine learning techniques. **2017**,	9
581	An Automated Classification of Pathological Gait Using Unobtrusive Sensing Technology. **2017**, 25, 2336-2346	39
580	A ROBUST AUTOMATIC GAIT MONITORING APPROACH USING A SINGLE IMU FOR HOME-BASED APPLICATIONS. **2017**, 17, 1750077	8
579	Instrumented footwear inserts: A new tool for measuring forces and biomechanical state changes during dynamic movements. **2017**,	1
578	Transforming sensor data to the image domain for deep learning An application to footstep detection. **2017**,	24
577	Computing and Network Sustainability. **2017**,	
576	Measuring Changes in Gait and Vehicle Transfer Ability During Inpatient Rehabilitation with Wearable Inertial Sensors. **2017**, 2017,	2

575	Multi-channel Fusion Based Adaptive Gait Trajectory Generation Using Wearable Sensors. **2017**, 86, 335-351	10
574	Photonic crystals: emerging biosensors and their promise for point-of-care applications. **2017**, 46, 366-388	238
573	. **2017**, 17, 812-822	100
572	A Study on Security and Surveillance System Using Gait Recognition. **2017**, 227-252	2
571	Intelligent Techniques in Signal Processing for Multimedia Security. **2017**,	24
570	25 years of lower limb joint kinematics by using inertial and magnetic sensors: A review of methodological approaches. **2017**, 51, 239-246	98
569	Objective clinical gait analysis using inertial sensors and six minute walking test. **2017**, 63, 246-257	11
568	Mining Human Mobility to Quantify Performance Status. **2017**,	3
567	Real-Time Continuous Gait Phase and Speed Estimation from a Single Sensor. **2017**, 2017, 847-852	22
566	Measuring frailty and detecting falls for elderly home care using depth camera. **2017**, 9, 469-481	13
565	Clog-integrated plantar visualization system for evaluating activity during walking. **2017**,	0
564	Supporting rehabilitation after hip replacement with a mobile device carried in a pocket. **2017**,	1
563	On improving gait analysis data. **2017**,	
562	. **2017**,	1
561	Detection of gait abnormality through leg symmetry and temporal parameters. **2017**,	8
560	. **2017**,	
559	Validation of a motion capture suit for clinical gait analysis. **2017**,	2
558	Classifying gait features for stance and swing using machine learning. **2017**,	6

557	Utilizing gait traits to improve e-border watchlist performance. **2017**,		1
556	Classification of Gait Anomaly due to Lesion Using Full-Body Gait Motions. **2017**, E100.D, 874-881		2
555	Multimodal gait analysis based on wearable inertial and microphone sensors. **2017**,		2
554	Comparison of accelerometer-based and treadmill-based analysis systems for measuring gait parameters in healthy adults. **2017**, 29, 651-653		4
553	GaitKeeper: A System for Measuring Canine Gait. *Sensors*, **2017**, 17,	3.8	10
552	Motor Function Evaluation of Hemiplegic Upper-Extremities Using Data Fusion from Wearable Inertial and Surface EMG Sensors. *Sensors*, **2017**, 17,	3.8	23
551	Inertial Sensor-Based Robust Gait Analysis in Non-Hospital Settings for Neurological Disorders. *Sensors*, **2017**, 17,	3.8	66
550	Multi-Axis Force Sensor for Human-Robot Interaction Sensing in a Rehabilitation Robotic Device. *Sensors*, **2017**, 17,	3.8	24
549	Static and Dynamic Accuracy of an Innovative Miniaturized Wearable Platform for Short Range Distance Measurements for Human Movement Applications. *Sensors*, **2017**, 17,	3.8	19
548	Measurement of Walking Ground Reactions in Real-Life Environments: A Systematic Review of Techniques and Technologies. *Sensors*, **2017**, 17,	3.8	28
547	Soft Smart Garments for Lower Limb Joint Position Analysis. *Sensors*, **2017**, 17,	3.8	60
546	A Wearable Magneto-Inertial System for Gait Analysis (H-Gait): Validation on Normal Weight and Overweight/Obese Young Healthy Adults. *Sensors*, **2017**, 17,	3.8	25
545	Fall Prediction and Prevention Systems: Recent Trends, Challenges, and Future Research Directions. *Sensors*, **2017**, 17,	3.8	61
544	POFBG-Embedded Cork Insole for Plantar Pressure Monitoring. *Sensors*, **2017**, 17,	3.8	60
543	l-DOPA and Freezing of Gait in Parkinson's Disease: Objective Assessment through a Wearable Wireless System. **2017**, 8, 406		37
542	Quantitative Analysis of Motor Status in Parkinson's Disease Using Wearable Devices: From Methodological Considerations to Problems in Clinical Applications. **2017**, 2017, 6139716		16
541	Dynamic long short-term memory network for skeleton-based gait recognition. **2017**,		5
540	An Acceleration-Based Gait Assessment Method for Children with Cerebral Palsy. *Sensors*, **2017**, 17,	3.8	9

539	Mechanical lifting energy consumption in work activities designed by means of the "revised NIOSH lifting equation". **2017**, 55, 444-454	15
538	Head position affects the direction of occlusal force during tapping movement. **2018**, 45, 363-370	3
537	Electronic Assessment of Physical Decline in Geriatric Cancer Patients. **2018**, 20, 26	3
536	Dispenser printing of piezo-resistive nanocomposite on woven elastic fabric and hysteresis compensation for skin-mountable stretch sensing. **2018**, 27, 025017	9
535	The implementation of inertial sensors for the assessment of temporal parameters of gait in the knee arthroplasty population. **2018**, 54, 22-27	12
534	Validation of a method to measure the vector fidelity of triaxial vector sensors. **2018**, 29, 065106	2
533	Gait in Mild Alzheimer's Disease: Feasibility of Multi-Center Measurement in the Clinic and Home with Body-Worn Sensors: A Pilot Study. **2018**, 63, 331-341	29
532	The Assessment of Gait Disorders in Neurorehabilitation. **2018**, 69-82	
531	Gait symmetry measures: A review of current and prospective methods. **2018**, 42, 89-100	65
530	Walking speed measurement with an Ambient Measurement System (AMS) in patients with multiple sclerosis and walking impairment. **2018**, 61, 393-397	8
529	Analysis of skeletal muscle performance using piezoelectric film sensors. **2018**, 26, 371-378	
528	Smartphone Orientation Estimation Algorithm Combining Kalman Filter With Gradient Descent. **2018**, 22, 1421-1433	18
527	Barriers to the Adoption of Wearable Sensors in the Workplace: A Survey of Occupational Safety and Health Professionals. **2018**, 60, 351-362	73
526	The use of wearable devices for walking and running gait analysis outside of the lab: A systematic review. **2018**, 63, 124-138	92
525	Inertial Sensing for Gait Event Detection and Transfemoral Prosthesis Control Strategy. **2018**, 65, 2704-2712	26
524	A review in gait rehabilitation devices and applied control techniques. **2018**, 13, 819-834	16
523	Clinical potential of implantable wireless sensors for orthopedic treatments. **2018**, 15, 255-264	18
522	Using Body-Worn Sensors for Preliminary Rehabilitation Assessment in Stroke Victims With Gait Impairment. **2018**, 6, 31249-31258	31

521	Recent developments in human gait research: parameters, approaches, applications, machine learning techniques, datasets and challenges. **2018**, 49, 1-40	97
520	Continuous measuring of the indoor walking speed of older adults living alone. **2018**, 9, 589-599	9
519	Numerical Simulations and Experimental Human Gait Analysis Using Wearable Sensors. **2018**, 289-304	15
518	Seamless Healthcare Monitoring. **2018**,	9
517	Physical Activity. **2018**, 413-455	2
516	Wearable Units. **2018**, 211-249	4
515	The Emerging Role of Digital Technologies in Early Clinical Development. **2018**, 103, 39-41	0
514	Effects of Wearable Sensor-Based Balance and Gait Training on Balance, Gait, and Functional Performance in Healthy and Patient Populations: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. **2018**, 64, 74-89	54
513	Automatic analysis of complex athlete techniques in broadcast taekwondo video. **2018**, 77, 13643-13660	7
512	Energy-Aware Wearable E-Health Architecture Using Optical FBG Sensors for Knee Kinematic Monitoring. **2018**,	10
511	Constrained Optimization-Based Extreme Learning Machines with Bagging for Freezing of Gait Detection. **2018**, 2, 31	3
510	Vision-Based Gait Recognition: A Survey. **2018**, 6, 70497-70527	58
509	An SVM fall recognition algorithm based on a gravity acceleration sensor. **2018**, 6, 208-214	6
508	eZiGait: Toward an AI Gait Analysis And Sssistant System. **2018**,	3
507	Evaluation of the IngVaL Pedobarography System for Monitoring of Walking Speed. **2018**, 24, 118-124	2
506	Estimation of Spatial-Temporal Gait Parameters based on the Fusion of Inertial and Film-Pressure Signals. **2018**,	2
505	The feasibility of predicting ground reaction forces during running from a trunk accelerometry driven mass-spring-damper model. **2018**, 6, e6105	12
504	. **2018**,	3

503	Kinematic-based Knee Angle Correction for Gait Analysis Using Single Kinect Sensor. **2018**,		
502	Detection of Asymmetric Abnormalities in Gait using Depth Data and Dynamic Bayesian Networks. **2018**,		2
501	Development of Spatio-Temporal, and Kinetics Database of Undergraduate Malaysian University Students : Further Investigations, and Opportunities. **2018**,		
500	Kinect Camera Based Gait Data Recording and Analysis for Assistive Robotics-An Alternative to Goniometer Based Measurement Technique. **2018**, 133, 763-771		8
499	The Role of Wearable Devices in Multiple Sclerosis. **2018**, 2018, 7627643		19
498	Error Analysis of ZUPT-Aided Pedestrian Inertial Navigation. **2018**,		23
497	Multi-Functional Soft Strain Sensors for Wearable Physiological Monitoring. *Sensors*, **2018**, 18,	3.8	27
496	Real-Time Joint Axes Estimation of the Hip and Knee Joint during Gait using Inertial Sensors. **2018**,		2
495	Neurodegenerative Disease Prediction Based on Gait Analysis Signals Acquired with Force-Sensitive Resistors. **2018**,		2
494	Walking Gait Measurement and Analysis via Knee Angle Movement and Foot Plantar Pressures. **2018**,		3
493	Kinematic and Kinetic Patterns Related to Free-Walking in Parkinson's Disease. *Sensors*, **2018**, 18,	3.8	9
492	ADEPTNESS: Alzheimer Disease Patient Management System Using Pervasive Sensors - Early Prototype and Preliminary Results. **2018**, 413-422		21
491	GaIn: Human Gait Inference for Lower Limbic Prostheses for Patients Suffering from Double Trans-Femoral Amputation. *Sensors*, **2018**, 18,	3.8	5
490	Automated detection and classification of construction workers' loss of balance events using wearable insole pressure sensors. **2018**, 96, 189-199		26
489	Design of Instrumented Shoes for Gait Characterization: A Usability Study With Healthy and Post-stroke Hemiplegic Individuals. **2018**, 12, 459		13
488	Preliminary Investigation of Textile-Based Strain Sensors for the Detection of Human Gait Phases Using Machine Learning. **2018**,		6
487	Quantitative Analysis of Abnormal and Normal Gait based on Inertial Sensors. **2018**,		2
486	Clinical Gait Assessment Comparison: Smartphone-Based Versus Inertial Measurements Units. **2018** ,		1

485	A Step Towards Design and Validation of Portable, Cost-effective Device for Gait Characterization. **2018**,		
484	Mechanical Design of a Modular-Adaptive Knee Active Orthosis. **2018**, 880, 124-129		
483	Actuation Systems of Active Orthoses Used for Gait Rehabilitation. **2018**, 880, 118-123		2
482	Novelty Detection using Deep Normative Modeling for IMU-Based Abnormal Movement Monitoring in Parkinson's Disease and Autism Spectrum Disorders. *Sensors*, **2018**, 18,	3.8	22
481	Hydrophobic Microfiber Strain Sensor Operating Stably in Sweat and Water Environment. **2018**, 5, 1801376		10
480	Wearable Sensor Data to Track Subject-Specific Movement Patterns Related to Clinical Outcomes Using a Machine Learning Approach. *Sensors*, **2018**, 18,	3.8	20
479	"You can tell by the way I use my walk." Predicting the presence of cognitive load with gait measurements. **2018**, 17, 122		6
478	Pre-Habilitation and Wellness through Gait Analysis using Body Worn Sensors. **2018**,		2
477	Inclusively designing IDA. **2018**,		1
476	Usage of VGRF in Biometrics: Application on Healthy and Parkinson Gaits. **2018**,		
475	Inertial Sensor-Based Gait and Attractor Analysis as Clinical Measurement Tool: Functionality and Sensitivity in Healthy Subjects and Patients With Symptomatic Lumbar Spinal Stenosis. **2018**, 9, 1095		5
474	Validation of a Wearable IMU System for Gait Analysis: Protocol and Application to a New System. **2018**, 8, 1167		30
473	Validation of foot pitch angle estimation using inertial measurement unit against marker-based optical 3D motion capture system. **2018**, 8, 283-290		20
472	Low-dimensional dynamical characterization of human performance of cancer patients using motion data. **2018**, 56, 61-69		5
471	Use of baseline pelvic acceleration during running for classifying response to muscle strengthening treatment in patellofemoral pain: A preliminary study. **2018**, 57, 74-80		4
470	Method for Wearable Kinematic Gait Analysis Using a Harmonic Oscillator Applied to the Center of Mass. **2018**, 2018, 1-14		5
469	Knee joint vibroarthrography of asymptomatic subjects during loaded flexion-extension movements. **2018**, 56, 2301-2312		14
468	Kinematic and kinetic measurements of human body. **2018**, 119-177		

467	Wearable Sensors for Upper Limb Monitoring. **2018**, 113-134		1
466	Automatic Setting Procedure for Exoskeleton-Assisted Overground Gait: Proof of Concept on Stroke Population. **2018**, 12, 10		14
465	Technologies for Advanced Gait and Balance Assessments in People with Multiple Sclerosis. **2017**, 8, 708		35
464	Polydimethylsiloxane (PDMS)-Based Flexible Resistive Strain Sensors for Wearable Applications. **2018**, 8, 345		87
463	How Magnetic Disturbance Influences the Attitude and Heading in Magnetic and Inertial Sensor-Based Orientation Estimation. *Sensors*, **2017**, 18,	3.8	42
462	The Effect of the Accelerometer Operating Range on Biomechanical Parameters: Stride Length, Velocity, and Peak Tibial Acceleration during Running. *Sensors*, **2018**, 18,	3.8	18
461	Joint Center Estimation Using Single-Frame Optimization: Part 1: Numerical Simulation. *Sensors*, **2018**, 18,	3.8	7
460	Robust Stride Segmentation of Inertial Signals Based on Local Cyclicity Estimation. *Sensors*, **2018**, 18,	3.8	8
459	Advances in Automation Technologies for Lower Extremity Neurorehabilitation: A Review and Future Challenges. **2018**, 11, 289-305		27
458	System for automatic gait analysis based on a single RGB-D camera. **2018**, 13, e0201728		19
457	A textile-based triboelectric nanogenerator with humidity-resistant output characteristic and its applications in self-powered healthcare sensors. **2018**, 50, 513-520		130
456	Wearable knee joint angle measurement system based on force sensitive resistors. **2018**,		0
455	In Vivo Measurements: Motion Analysis. **2018**, 189-201		1
454	Running patterns for male and female competitive and recreational runners based on accelerometer data. **2019**, 37, 204-211		24
453	Accelerometer-Based Speed-Adaptive Gait Authentication Method for Wearable IoT Devices. **2019**, 6, 820-830		47
452	Overview of Computational Intelligence (CI) Techniques for Powered Exoskeletons. **2019**, 353-383		6
451	Closing the Wearable Gap-Part II: Sensor Orientation and Placement for Foot and Ankle Joint Kinematic Measurements. *Sensors*, **2019**, 19,	3.8	14
450	Image-based center of mass estimation of the human body via 3D shape and kinematic structure. **2019**, 22, 1		3

449	Sensitivity comparison of inertial to optical motion capture during gait: implications for tracking recovery. **2019**, 2019, 139-144		5
448	Quantifying Differences Between Child and Adult Motion Based on Gait Features. **2019**, 385-402		2
447	Instrumented Crutch Tip for Monitoring Force and Crutch Pitch Angle. *Sensors*, **2019**, 19,	3.8	8
446	Quantification of the validity and reliability of sprint performance metrics computed using inertial sensors: A systematic review. **2019**, 73, 26-38		9
445	Sensing strategies in wearable bio-mechanical systems for medicine and sport: a review. **2019**, 29, 103001		9
444	A Systematic Comparison of Age and Gender Prediction on IMU Sensor-Based Gait Traces. *Sensors*, **2019**, 19,	3.8	25
443	Wearable Accelerometer and sEMG-Based Upper Limb BSN for Tele-Rehabilitation. **2019**, 9, 2795		17
442	Tracking Foot Drop Recovery Following Lumbar-Spine Surgery, Applying Multiclass Gait Classification Using Machine Learning Techniques. *Sensors*, **2019**, 19,	3.8	5
441	Application-Aware Dynamic Energy Management for Portable Devices. **2019**, 52, 62-72		
440	Gait Analysis Using Smartwatches. **2019**,		2
439	Van der Pauw Method for Measuring the Electrical Conductivity of Smart Textiles. **2019**, 51, 139-146		1
438	Validation of a new inertial measurement unit system based on different dynamic movements for future in-field applications. **2019**, 1-16		7
437	Validity, reliability, and feasibility of the uSense activity monitor to register physical activity and gait performance in habitual settings of geriatric patients. **2019**, 40, 095005		7
436	A High-Fidelity Wearable System for Measuring Lower-Limb Kinetics and Kinematics. **2019**, 19, 12482-12493		8
435	Designing a Wearable Device for Step Analyzing. **2019**,		2
434	Multi-modality fusion of floor and ambulatory sensors for gait classification. **2019**,		5
433	Stridalyzer Insight Smart Insoles: a Clinical Grade Gait Analysis System. **2019**,		0
432	Performance Evaluation of Conductive Textiles for Movement Pattern Recognition in Smart Socks. **2019**,		2

431	IMU-Based Walking Workouts Recognition. **2019**,		3
430	Bio-Integrated Wearable Systems: A Comprehensive Review. **2019**, 119, 5461-5533		496
429	. **2019**, 19, 3751-3762		12
428	Evaluation of Gait Phase Detection Delay Compensation Strategies to Control a Gyroscope-Controlled Functional Electrical Stimulation System During Walking. *Sensors*, **2019**, 19,	3.8	12
427	Reproducibility and discriminant validity of two clinically feasible measurement methods to obtain coronal plane gait kinematics in participants with a lower extremity amputation. **2019**, 14, e0217046		
426	GymSoles. **2019**,		16
425	Identification of Kinematic Parameters of Stroke Gait Using Accelerometer. **2019**, 261-267		
424	Rapid energy expenditure estimation for ankle assisted and inclined loaded walking. **2019**, 16, 67		9
423	Classification of foot drop gait characteristic due to lumbar radiculopathy using machine learning algorithms. **2019**, 71, 234-240		13
422	Validity and reliability of a shoe-embedded sensor module for measuring foot progression angle during over-ground walking. **2019**, 89, 123-127		9
421	. **2019**, 19, 6437-6444		6
420	Literature Review. **2019**, 17-81		
419	Move Your Body: Age Estimation Based on Chest Movement During Normal Walk. **2019**, 7, 28510-28524		13
418	Wearable Sensors System for an Improved Analysis of Freezing of Gait in Parkinson's Disease Using Electromyography and Inertial Signals. *Sensors*, **2019**, 19,	3.8	28
417	A smart insole for monitoring plantar pressure based on the fiber Bragg grating sensing technique. **2019**, 89, 3433-3446		11
416	Machine Learning for Analyzing Gait in Parkinson Patients Using Wearable Force Sensors. **2019**, 548-559		
415	Sensor Measures of Symmetry Quantify Upper Limb Movement in the Natural Environment Across the Lifespan. **2019**, 100, 1176-1183		13
414	A Scale Mixture-Based Stochastic Model of Surface EMG Signals With Variable Variances. **2019**, 66, 2780-2788		4

413	Self-Powered and Self-Functional Cotton Sock Using Piezoelectric and Triboelectric Hybrid Mechanism for Healthcare and Sports Monitoring. **2019**, 13, 1940-1952		144
412	Validation of inertial measurement units with optical tracking system in patients operated with Total hip arthroplasty. **2019**, 20, 52		21
411	Experimental study of the treadmill inclination influence on the flexion angles of the lower limbs joints. **2019**, 572, 012096		
410	Gait analysis based on angular velocity during human walking on five terrains. **2019**,		
409	Joint Gait Kinematic and Kinetic Analysis using Inertial Measurement Units and Plantar Pressure Sensor System. **2019**,		0
408	Development of a serious game to enhance assistive rehabilitation. **2019**, 11, 299		
407	Psychomotor retardation in recurrent depression and the related factors. **2019**, 28, 208-219		0
406	Analysis of Eye Tracking of Physiotherapist during Walk Rehabilitation. **2019**,		1
405	Design and Preliminary Testing of an Instrumented Exoskeleton for Walking Gait Measurement. **2019**,		1
404	Human Gait Analysis Using OpenPose. **2019**,		18
403	. **2019**,		2
402	A review of motion capture systems for upper limb motion in throwing events: Inertial measurement unit. **2019**, 670, 012051		
401	Fiber Bragg Gratings as e-Health Enablers: An Overview for Gait Analysis Applications. **2019**,		1
400	Predicting Three-Dimensional Ground Reaction Forces in Running by Using Artificial Neural Networks and Lower Body Kinematics. **2019**, 7, 156779-156786		17
399	Flooding Level Classification by Gait Analysis of Smartphone Sensor Data. **2019**, 7, 181678-181687		3
398	A low-cost vision system based on the analysis of motor features for recognition and severity rating of Parkinson's Disease. **2019**, 19, 243		17
397	Gait Phase Classification and Assist Torque Prediction for a Lower Limb Exoskeleton System Using Kernel Recursive Least-Squares Method. *Sensors*, **2019**, 19,	3.8	6
396	Flexible Insole Sensors with Stably Connected Electrodes for Gait Phase Detection. *Sensors*, **2019**, 19,	3.8	15

395	Identification of Gait Motion Patterns Using Wearable Inertial Sensor Network. *Sensors*, **2019**, 19,	3.8	4
394	Walking in a smart city: Investigating the gait stabilization effect for biometric recognition via wearable sensors. **2019**, 80, 106501		9
393	A Survey of Teleceptive Sensing for Wearable Assistive Robotic Devices. *Sensors*, **2019**, 19,	3.8	11
392	Agreement between Opal and G-Walk Wearable Inertial Systems in Gait Analysis on Normal and Pathological Subjects. **2019**, 2019, 3286-3289		13
391	Gait classification for Parkinson's Disease using Stacked 2D and 1D Convolutional Neural Network. **2019**,		4
390	The Problem of Psychological Rehabilitation of Persons with Disorders of the Musculoskeletal System Acquired in Adulthood. **2019**, 9,		3
389	Echogenicity Is Related to Skeletal Muscle Strength in Patients With Acute Respiratory Failure. **2019**, 39, E17-E20		2
388	On the diagnosis of idiopathic Parkinson disease using continuous wavelet transform complex plot. **2019**, 10, 2805-2815		17
387	Assessment of the measurement accuracy of inertial sensors during different tasks of daily living. **2019**, 84, 81-86		18
386	Continuous Activity Tracking Using a Wrist-Mounted Device in Adult Spinal Deformity: A Proof of Concept Study. **2019**, 122, 349-354		2
385	Toward Unobtrusive In-Home Gait Analysis Based on Radar Micro-Doppler Signatures. **2019**, 66, 2629-2640		57
384	Ingenious use of natural triboelectrification on the human body for versatile applications in walking energy harvesting and body action monitoring. **2019**, 57, 872-878		18
383	Data-Driven Based Approach to Aid Parkinson's Disease Diagnosis. *Sensors*, **2019**, 19,	3.8	42
382	A Triboelectric Nanogenerator-Based Smart Insole for Multifunctional Gait Monitoring. **2019**, 4, 1800360		103
381	Inertial sensors versus standard systems in gait analysis: a systematic review and meta-analysis. **2019**, 55, 265-280		31
380	Insole Optical Fiber Sensor Architecture for Remote Gait Analysis An e-Health Solution. **2019**, 6, 207-214		45
379	Review wearable sensing system for gait recognition. **2019**, 22, 3021-3029		41
378	Real-World Gait Speed Estimation Using Wrist Sensor: A Personalized Approach. **2020**, 24, 658-668		16

377	Gait Event Detection From Accelerometry Using the Teager-Kaiser Energy Operator. **2020**, 67, 658-666		11
376	Falls Risk Classification of Older Adults Using Deep Neural Networks and Transfer Learning. **2020**, 24, 144-150		10
375	Non-rigid alignment pipeline applied to human gait signals acquired with optical motion capture systems and inertial sensors. **2020**, 98, 109429		3
374	Sport biomechanics: Experimental and computer simulation of knee joint during jumping and walking. **2020**, 387-418		1
373	A dual-carbon-anchoring strategy to fabricate flexible LiMn2O4 cathode for advanced lithium-ion batteries with high areal capacity. **2020**, 67, 104256		31
372	Immediate Effects of Real-Time Visual Bio-feedback Using Ground Reaction Forces on Gait Symmetry in Elderly Males. **2020**, 21, 117-126		4
371	Random forest-based classsification and analysis of hemiplegia gait using low-cost depth cameras. **2020**, 58, 373-382		4
370	Bringing spatiotemporal gait analysis into clinical practice: Instrument validation and pilot study of a commercial sensorized carpet. **2020**, 188, 105292		1
369	Effects of segment masses and cut-off frequencies on the estimation of vertical ground reaction forces in running. **2020**, 99, 109552		3
368	Wireless Ground Reaction Force Sensing System Using a Mechanically Decoupled Two-Dimensional Force Sensor. **2020**, 25, 66-75		6
367	Alzheimer disease detection using skeleton data recorded with Kinect camera. **2020**, 23, 1469-1481		4
366	Deep Learning for Fall Risk Assessment With Inertial Sensors: Utilizing Domain Knowledge in Spatio-Temporal Gait Parameters. **2020**, 24, 1994-2005		24
365	Wearable Sensors for Monitoring Human Motion: A Review on Mechanisms, Materials, and Challenges. **2020**, 25, 9-24		36
364	Accurate Ambulatory Gait Analysis in Walking and Running Using Machine Learning Models. **2020**, 28, 191-202		28
363	An Outsole-Embedded Optoelectronic Sensor to Measure Shear Ground Reaction Forces During Locomotion. **2020**,		
362	w-HAR: An Activity Recognition Dataset and Framework Using Low-Power Wearable Devices. *Sensors*, **2020**, 20,	3.8	14
361	Prediction of ground reaction force and joint moments based on optical motion capture data during gait. **2020**, 86, 29-34		8
360	Applying the Minimal Detectable Change of a Static and Dynamic Balance Test Using a Portable Stabilometric Platform to Individually Assess Patients with Balance Disorders. **2020**, 8,		3

359	Accurate fall detection for patients with Parkinson's disease based on a data event algorithm and wireless sensor nodes. **2020**, 156, 107573		12
358	Mapping-Based Dosage of Gait Modification Selection for Multi-Parameter, Subject-Specific Gait Retraining. **2020**, 8, 106354-106363		1
357	Modeling Fabric Movement for Future E-Textile Sensors. *Sensors*, **2020**, 20,	3.8	1
356	An Adaptive Method for Gait Event Detection of Gait Rehabilitation Robots. **2020**, 14, 38		3
355	A database of human gait performance on irregular and uneven surfaces collected by wearable sensors. **2020**, 7, 219		19
354	Adaptive Gait Phase Segmentation Based on the Time-Varying Identification of the Ankle Dynamics: Technique and Simulation Results. **2020**,		
353	Textile Electronics for VR/AR Applications. **2020**, 31, 2007254		20
352	Effect of Using an 8-Figure Shoulder Brace on Posture and Muscle Activities during the Performance of Dental Hygiene Procedures. **2020**, 17,		1
351	A Study of Accelerometer and Gyroscope Measurements in Physical Life-Log Activities Detection Systems. *Sensors*, **2020**, 20,	3.8	23
350	EMG-Centered Multisensory Based Technologies for Pattern Recognition in Rehabilitation: State of the Art and Challenges. **2020**, 10,		20
349	Gait-cycle segmentation method based on lower-trunk acceleration signals and dynamic time warping. **2020**, 82, 70-77		2
348	Real-time pressure mapping smart insole system based on a controllable vertical pore dielectric layer. **2020**, 6, 62		26
347	Hybrid Simulated Annealing and Genetic Algorithm for Optimization of a Rule-based Algorithm for Detection of Gait Events in Impaired Subjects. **2020**,		1
346	. **2020**,		5
345	Validation of Insole-based Gait Analysis System in Young Children with a Neurodevelopmental Disorder and Autism Traits. **2020**,		3
344	Distinguishing between Parkinson disease patients and healthy individuals using a comprehensive set of time, frequency and time-frequency features extracted from vertical ground reaction force data. **2020**, 62, 102132		4
343	Age and environment-related differences in gait in healthy adults using wearables. **2020**, 3, 127		3
342	. **2020**, 8, 193966-193980		11

341	Multi-modality sensor fusion for gait classification using deep learning. **2020**,		3
340	Concurrent Validity, Test-Retest Reliability, and Sensitivity to Change of a Single Body-Fixed Sensor for Gait Analysis during Rollator-Assisted Walking in Acute Geriatric Patients. *Sensors*, **2020**, 20,	3.8	5
339	Surface Electromyography Applied to Gait Analysis: How to Improve Its Impact in Clinics?. **2020**, 11, 994		13
338	Gender Differences in Kinematic Parameters of Topspin Forehand and Backhand in Table Tennis. **2020**, 17,		10
337	Identification of Gait Events in Healthy and Parkinson Disease Subjects Using Inertial Sensors: A Supervised Learning Approach. **2020**, 20, 14984-14993		6
336	Quantitative Modeling of Spasticity for Clinical Assessment, Treatment and Rehabilitation. *Sensors*, **2020**, 20,	3.8	6
335	Brain Informatics. **2020**,		3
334	Optimization of a wearable speed monitoring device for welding applications. **2020**, 110, 1285-1293		2
333	Inertial sensor fusion for gait recognition with symmetric positive definite Gaussian kernels analysis. **2020**, 79, 32665-32692		1
332	. **2020**, 8, 167830-167864		19
331	IMU-based Smart Knee Pad for Walking Distance and Stride Count Measurement. **2020**,		1
330	Automated fall risk assessment of elderly using wearable devices. **2020**, 7, 2055668320946209		0
329	Inertial sensor-based gait parameters reflect patient-reported fatigue in multiple sclerosis. **2020**, 17, 165		8
328	Evaluation and Application of a Customizable Wireless Platform: A Body Sensor Network for Unobtrusive Gait Analysis in Everyday Life. *Sensors*, **2020**, 20,	3.8	2
327	Investigating the Relation between Walkability and the Changes in Pedestrian Policy through Wearable Sensing. **2020**, 12, 10447		3
326	Quantifying varus thrust in knee osteoarthritis using wearable inertial sensors: A proof of concept. **2020**, 80, 105232		3
325	Quantifying Kinematic Adaptations of Gait During Walking on Terrains of Varying Surface Compliance. **2020**,		
324	Challenges and Opportunities for Statistical Monitoring of Gait Cycle Acceleration Observed from IMU Data for Fatigue Detection. **2020**,		1

323	Validity and reliability of wearable inertial sensors in healthy adult walking: a systematic review and meta-analysis. **2020**, 17, 62		42
322	Feasibility of a Sensor-Based Technological Platform in Assessing Gait and Sleep of In-Hospital Stroke and Incomplete Spinal Cord Injury (iSCI) Patients. *Sensors*, **2020**, 20,	3.8	2
321	An Infrared Sensor-Based Instrumented Shoe for Gait Events Detection on Different Terrains and Transitions. **2020**, 20, 10779-10791		6
320	. **2020**, 8, 109866-109875		8
319	A gel-free TiCT-based electrode array for high-density, high-resolution surface electromyography. **2020**, 5, 2000325		16
318	Gait Analysis in a Box: A System Based on Magnetometer-Free IMUs or Clusters of Optical Markers with Automatic Event Detection. *Sensors*, **2020**, 20,	3.8	9
317	Classification and Kinetic Analysis of Healthy Gait using Multiple Accelerometer Sensors. **2020**, 171, 395-402		5
316	Classification of Human Gait: Swing and Stance Phases using Sum-Vector Analysis. **2020**, 171, 403-409		1
315	Design of a Machine Learning-Assisted Wearable Accelerometer-Based Automated System for Studying the Effect of Dopaminergic Medicine on Gait Characteristics of Parkinson's Patients. **2020**, 2020, 1823268		13
314	Wearable Trip-Risk Monitoring System based on Plantar Information. **2020**,		0
313	Human Gait Tracking for Normal People and Walker Users Using a 2D LiDAR. **2020**, 20, 6191-6199		9
312	Design of a wireless smart insole using stretchable microfluidic sensor for gait monitoring. **2020**, 29, 065003		13
311	A force□oltage responsivity stabilization method for piezoelectric-based insole gait analysis for high detection accuracy in health monitoring. **2020**, 16, 155014772090544		7
310	Pressure-Sensitive Insoles for Real-Time Gait-Related Applications. *Sensors*, **2020**, 20,	3.8	15
309	Accuracy Verification of Spatio-Temporal and Kinematic Parameters for Gait Using Inertial Measurement Unit System. *Sensors*, **2020**, 20,	3.8	15
308	Sensor-to-Segment Calibration Methodologies for Lower-Body Kinematic Analysis with Inertial Sensors: A Systematic Review. *Sensors*, **2020**, 20,	3.8	15
307	In-Ear Accelerometer-Based Sensor for Gait Classification. **2020**, 20, 12895-12902		5
306	Gait Analysis in Parkinson's Disease: An Overview of the Most Accurate Markers for Diagnosis and Symptoms Monitoring. *Sensors*, **2020**, 20,	3.8	27

305	Changes in symmetry during gait in adults with Prader-Willi syndrome. **2020**, 23, 1094-1101		2
304	Collaborative learning based on centroid-distance-vector for wearable devices. **2020**, 194, 105569		5
303	Towards Wearable-Inertial-Sensor-Based Gait Posture Evaluation for Subjects with Unbalanced Gaits. *Sensors*, **2020**, 20,	3.8	15
302	Accurate foot clearance estimation during level and uneven ground walking using inertial sensors. **2020**, 31, 055106		8
301	A Systematic Approach to the Design and Characterization of A Smart Insole for Detecting Vertical Ground Reaction Force (vGRF) in Gait Analysis. *Sensors*, **2020**, 20,	3.8	33
300	Accelerometry-Based Digital Gait Characteristics for Classification of Parkinson's Disease: What Counts?. **2020**, 1, 65-73		17
299	Wearable Sensor-Based Gait Analysis for Age and Gender Estimation. *Sensors*, **2020**, 20,	3.8	20
298	Accurate recognition of lower limb ambulation mode based on surface electromyography and motion data using machine learning. **2020**, 193, 105486		9
297	Fusion of Multiple Motion Capture Systems for Musculoskeletal Analysis. **2020**,		1
296	A Smart Terrain Identification Technique Based on Electromyography, Ground Reaction Force, and Machine Learning for Lower Limb Rehabilitation. **2020**, 10, 2638		13
295	Wearable Inertial Sensor System Towards Daily Human Kinematic Gait Analysis: Benchmarking Analysis to MVN BIOMECH. *Sensors*, **2020**, 20,	3.8	8
294	A Survey of Knee Osteoarthritis Assessment Based on Gait. **2021**, 28, 345-385		4
293	Asymmetry and Variability Should Be Included in the Assessment of Gait Function in Poststroke Hemiplegia With Independent Ambulation During Early Rehabilitation. **2021**, 102, 611-618		4
292	Gender and Age Estimation from Gait: A Review. **2021**, 947-962		2
291	Improved Gait Speed Calculation via Modulation Spectral Analysis of Noisy Accelerometer Data. **2021**, 21, 520-528		1
290	Gait Activity Classification From Feature-Level Sensor Fusion of Multi-Modality Systems. **2021**, 21, 4801-4810		3
289	Gait analysis in neurological populations: Progression in the use of wearables. **2021**, 87, 9-29		18
288	Probabilistic Modelling of Gait for Robust Passive Monitoring in Daily Life. **2021**, 25, 2293-2304		2

287	Variations in Patterns of Muscle Activity Observed in Participants Walking in Everyday Environments: Effect of Different Surfaces. **2021**, 73, 268-275		
286	Spatiotemporal Gait Measurement With a Side-View Depth Sensor Using Human Joint Proposals. **2021**, 25, 1758-1769		5
285	Monitoring worker fatigue using wearable devices: A case study to detect changes in gait parameters. **2021**, 53, 47-71		23
284	A Survey of Behavioral Biometric Gait Recognition: Current Success and Future Perspectives. **2021**, 28, 107-148		9
283	Positive impact of short-term gait rehabilitation in Parkinson patients: a combined approach based on statistics and machine learning. **2021**, 18, 6995-7009		5
282	. **2021**, 1-1		4
281	Biomechanical Ambulatory Assessment of 3D Knee Angle Using Novel Inertial Sensor-Based Technique. **2021**, 9, 36559-36570		1
280	A Lightweight Exoskeleton-Based Portable Gait Data Collection System. *Sensors*, **2021**, 21,	3.8	3
279	An IoT-Based Platform for Rehabilitation Monitoring and Biosignal Identification. **2021**, 977-998		
278	Three-axis force sensor miniaturized by 3D microstructuring using high-temperature punch creep-forming process. **2021**, 31, 025009		
277	Classification of Parkinson's Disease-Associated Gait Patterns. **2021**, 595-606		
276	Acceleration Gait Measures as Proxies for Motor Skill of Walking: A Narrative Review. **2021**, 29, 249-261		7
275	Correlation between clinical tests for gait and stability using biomechanical variables in the gait of institutionalized elderly subjects. **2021**, 13, 49-55		
274	Human Gait Analysis in Neurodegenerative Diseases: a Review. **2021**, PP,		10
273	Personalized Human Activity Recognition Based on Integrated Wearable Sensor and Transfer Learning. *Sensors*, **2021**, 21,	3.8	15
272	Wearables for disabled and extreme sports. **2021**, 253-273		1
271	Deep Learning Techniques in Estimating Ankle Joint Power Using Wearable IMUs. **2021**, 9, 83041-83054		2
270	OUP accepted manuscript.		1

269	Directing and Orienting ICT Healthcare Solutions to Address the Needs of the Aging Population. **2021**, 9,		6
268	Abnormal Gait Detection Using Wearable Hall-Effect Sensors. *Sensors*, **2021**, 21,	3.8	1
267	Differences in gait stability and acceleration characteristics between healthy young and older females.		
266	Integrating a Potentiometer into a Knee Brace Shows High Potential for Continuous Knee Motion Monitoring. *Sensors*, **2021**, 21,	3.8	2
265	Deep learning in Human Gait Recognition: An Overview. **2021**,		0
264	Building a skeleton-based 3D body model with angle sensor data. **2021**, 19, 100141		0
263	Independent and sensitive gait parameters for objective evaluation in knee and hip osteoarthritis using wearable sensors. **2021**, 22, 242		3
262	Towards Human Motion Tracking Enhanced by Semi-Continuous Ultrasonic Time-of-Flight Measurements. *Sensors*, **2021**, 21,	3.8	2
261	. **2021**, 21, 8593-8603		2
260	Ultra-Wide Range Pressure Sensor Based on a Microstructured Conductive Nanocomposite for Wearable Workout Monitoring. **2021**, 10, e2001461		10
259	Electrospun nanofiber-based soft electronics. **2021**, 13,		41
258	Movement smoothness in chronic post-stroke individuals walking in an outdoor environment-A cross-sectional study using IMU sensors. **2021**, 16, e0250100		3
257	Design and kinematic analysis of a novel rehabilitative robotic walking simulation device. **2021**, 235, 770-779		
256	Conformal, Ultra-thin Skin-Contact-Actuated Hybrid Piezo/Triboelectric Wearable Sensor Based on AlN and Parylene-Encapsulated Elastomeric Blend. **2021**, 31, 2101047		19
255	Estimation of the Continuous Walking Angle of Knee and Ankle (Talocrural Joint, Subtalar Joint) of a Lower-Limb Exoskeleton Robot Using a Neural Network. *Sensors*, **2021**, 21,	3.8	5
254	Akll Telefonlarla Ölmeller Sensr Yardmyla Yry Deseni Analizi.		0
253	Quantitative characterization of walking on sand inecological conditions: Speed, temporal segmentation, and variability. **2021**, 86, 211-216		3
252	Improved Single Inertial-Sensor-Based Attitude Estimation during Walking Using Velocity-Aided Observation. *Sensors*, **2021**, 21,	3.8	

251	Radar-Based Efficient Gait Classification using Gaussian Prototypical Networks. **2021**,		1
250	Research on a gait detection system and recognition algorithm for lower limb exoskeleton robot. **2021**, 43, 1		4
249	Two kinematic data-based approaches for cane event detection. 1		1
248	Impact of high-heeled and sport shoes on multi-joint external load profile during walking. **2021**, 34, 389-398		
247	FSR and IMU sensors-based human gait phase detection and its correlation with EMG signal for different terrain walk. **2021**, 41, 235-245		3
246	Wearable Devices for Biofeedback Rehabilitation: A Systematic Review and Meta-Analysis to Design Application Rules and Estimate the Effectiveness on Balance and Gait Outcomes in Neurological Diseases. *Sensors*, **2021**, 21,	3.8	9
245	Sensitivity of Apple Watch fall detection feature among wheelchair users. **2021**, 1-7		5
244	Polymer Optical Fiber-Embedded Force Sensor System for Assistive Devices With Dynamic Compensation. **2021**, 21, 13255-13262		0
243	Iontronic pressure sensor with high sensitivity and linear response over a wide pressure range based on soft micropillared electrodes. **2021**, 66, 1091-1100		27
242	Assessment Methods of Post-stroke Gait: A Scoping Review of Technology-Driven Approaches to Gait Characterization and Analysis. **2021**, 12, 650024		7
241	User-driven design and monitoring systems of limb prostheses: overview on the technology and on the gender-related aspects. **2021**,		1
240	Adaptive Accumulation of Plantar Pressure for Ambulatory Activity Recognition and Pedestrian Identification. *Sensors*, **2021**, 21,	3.8	4
239	Design a compact wireless IoT gait monitor wearable sensory system. **2021**,		0
238	A Real-Time Gait Phase Recognition Method Based on Multi-Information Fusion. **2021**,		1
237	Automated Gait Classification Using Spatio-Temporal and Statistical Gait Features. **2022**, 491-500		
236	Technological advancements in the analysis of human motion and posture management through digital devices. **2021**, 12, 467-484		1
235	Gait Phase Estimation by Using LSTM in IMU-Based Gait Analysis-Proof of Concept. *Sensors*, **2021**, 21,	3.8	5
234	Intention Prediction and Human Health Condition Detection in Reaching Tasks with Machine Learning Techniques. *Sensors*, **2021**, 21,	3.8	0

233	Gait Activity Classification Using Multi-Modality Sensor Fusion: A Deep Learning Approach. **2021**, 21, 16870-16879		2
232	Critical success factors influencing wearable sensing device implementation in AEC industry. **2021**, 66, 101636		4
231	Gait characteristics during crossing over obstacle in patients with glaucoma using insole foot pressure. **2021**, 100, e26938		
230	Navigation Error Analysis in the ZUPT-Aided Pedestrian Inertial Navigation. **2021**, 79-102		
229	Biometric Systems De-Identification: Current Advancements and Future Directions. **2021**, 1, 470-495		2
228	Design, Development, and Evaluation of a Bionic Knee-Ankle-Foot Orthosis Retrofit for Walking Gait Normalization. **2021**, 3, 825-837		
227	Light-Weight, Self-Powered Sensor Based on Triboelectric Nanogenerator for Big Data Analytics in Sports. **2021**, 10, 2322		3
226	A Spatiotemporal Deep Learning Approach for Automatic Pathological Gait Classification. *Sensors*, **2021**, 21,	3.8	3
225	Motorized Treadmill and Optical Recording System for Gait Analysis of Grasshoppers. *Sensors*, **2021**, 21,	3.8	0
224	Applying deep neural networks and inertial measurement unit in recognizing irregular walking differences in the real world. **2021**, 96, 103414		3
223	. **2021**, 51, 554-563		1
222	Vision-based approaches towards person identification using gait. **2021**, 42, 100432		3
221	Low-cost sensors for gait analysis. **2021**, 25-44		1
220	Body Motion Capture and Applications. **2021**, 181-223		
219	A Soft Wearable and Fully-Textile Piezoresistive Sensor for Plantar Pressure Capturing. **2021**, 12,		8
218	Comparative Analysis of SVM and DNN for Multiple Terrain Classification Using Hybrid Sensor. **2021**, 317-325		
217	Walking speed measurement technology: A review. **2021**, 10, 32-41		2
216	Bending Analysis of Polymer-Based Flexible Antennas for Wearable, General IoT Applications: A Review. **2021**, 13,		16

215	Continuous Gait Phase Estimation Using LSTM for Robotic Transfemoral Prosthesis Across Walking Speeds. **2021**, 29, 1470-1477	5
214	Gait Recognition Based on EMG Information with Multiple Features. **2018**, 402-411	4
213	Identifying Individuals Footsteps Walking on a Floor Sensor Device. **2013**, 56-63	2
212	Continuous Gait Velocity Analysis Using Ambient Sensors in a Smart Home. **2015**, 219-235	6
211	Effects of Total Hip Arthroplasty on Gait. **2016**, 1-15	1
210	Strengthening Health and Improving Emotional Defenses (SHIELD). **2018**, 58-66	1
209	Design and Development of a Real-Time, Low-Cost IMU Based Human Motion Capture System. **2017**, 155-165	10
208	Table Tennis Forehand and Backhand Stroke Recognition Based on Neural Network. **2020**, 24-35	1
207	Flexible and Wearable EMG and PSD Sensors Enabled Locomotion Mode Recognition for IoHT-Based In-Home Rehabilitation. **2021**, 21, 26311-26319	11
206	Biaxial optical fiber sensor based in two multiplexed Bragg gratings for simultaneous shear stress and vertical pressure monitoring. **2018**,	1
205	New Considerations for Wearable Technology Data: Changes in Running Biomechanics During a Marathon. **2019**, 1-9	14
204	LimbMotion. **2019**, 3, 1-24	6
203	Personal Attributes Identification based on Gait Recognition using Smart Phone Sensors. **2020**,	1
202	Quantitative Time Profiling of Children's Activity and Motion. **2017**, 49, 183-190	9
201	A natural user interface to integrate citizen science and physical exercise. **2017**, 12, e0172587	13
200	Vertical ground reaction force marker for Parkinson's disease. **2017**, 12, e0175951	49
199	The Multifeature Gait Score: An accurate way to assess gait quality. **2017**, 12, e0185741	6
198	Reliability of joint angle during sit-to-stand movements in persons with stroke using portable gait analysis system based wearable sensors. **2019**, 8, 146-151	3

197	A review of foot pose and trajectory estimation methods using inertial and auxiliary sensors for kinematic gait analysis. **2020**,		1
196	A Review on Wearable Inertial Tracking based Human Gait Analysis and Control Strategies of Lower-Limb Exoskeletons. **2017**, 3,		6
195	Validity Evaluation of the Fitbit Charge2 and the Garmin vivosmart HR+ in Free-Living Environments in an Older Adult Cohort. **2019**, 7, e13084		44
194	The Mobile-Based 6-Minute Walk Test: Usability Study and Algorithm Development and Validation. **2020**, 8, e13756		22
193	The Impact of Reducing the Number of Wearable Devices on Measuring Gait in Parkinson Disease: Noninterventional Exploratory Study. **2020**, 7, e17986		5
192	Feature-Free Activity Classification of Inertial Sensor Data With Machine Vision Techniques: Method, Development, and Evaluation. **2017**, 5, e115		15
191	Smartphone App-Based Assessment of Gait During Normal and Dual-Task Walking: Demonstration of Validity and Reliability. **2018**, 6, e36		37
190	Uncertainty based active learning with deep neural networks for inertial gait analysis. **2020**,		4
189	Experimental Design and Its Posterior Efficiency for the Calibration of Wearable Sensors. **2015**, 07, 11-20		4
188	Influences of treadmill speed and incline angle on the kinematics of the normal, osteoarthritic and prosthetic human knee. **2020**, 61, 199-208		1
187	Design and evaluation of a new exoskeleton for gait rehabilitation. **2017**, 8, 307-321		27
186	System of gait analysis based on ground reaction force assessment. **2015**, 45, 187-193		17
185	The running kinematics of free-roaming giraffes, measured using a low cost unmanned aerial vehicle (UAV). **2019**, 7, e6312		4
184	Agreement between the GAITRite System and the Wearable Sensor BTS G-Walk´for measurement of gait parameters in healthy adults and Parkinson's disease patients. **2020**, 8, e8835		10
183	Recent Advances in Quantitative Gait Analysis using Wearable Sensors: A Review. **2021**, 1-1		2
182	Inter-bout and intra-bout gait variability-proposed objective measures of gait deterioration during prolonged walking in spine care.. **2022**, 8, 180-184		
181	State-of-the-Art Wearable Sensors and Possibilities for Radar in Fall Prevention. *Sensors*, **2021**, 21,	3.8	2
180	Wearable Sensor for Assessing Gait and Postural Alterations in Patients with Diabetes: A Scoping Review. **2021**, 57,		0

179	Design and implementation of full-body motion capture system based on multi-sensor fusion. **2021**,	
178	Pattern Recognition of Brunei Soldiers Based on 3-Dimensional Kinematics and Spatio-Temporal Parameters. **2016**, 713-722	
177	Lesioned-Part Identification by Classifying Entire-Body Gait Motions. **2016**, 136-147	2
176	Human Gait Kinematic Measurement. **2017**, 07, 79-89	2
175	Interfacing Engineering Technology and Rehabilitation: A New Frontier for Physical Therapy. **2017**, 1-12	
174	Gait motion analysis using optical and inertial sensor fusion to design human kinetic energy harvesting systems. **2017**,	
173	Smartphone App?Based Assessment of Gait During Normal and Dual-Task Walking: Demonstration of Validity and Reliability (Preprint).	
172	Emerging Technologies for Mobile Health. **2017**, 469-517	
171	Experimental Human Walking and Virtual Simulation of Rehabilitation on Plane and Inclined Treadmill. **2018**, 149-155	3
170	An IoT-Based Platform for Rehabilitation Monitoring and Biosignal Identification. **2018**, 6, 1-19	
169	Effects of Total Hip Arthroplasty on Gait. **2018**, 1505-1519	1
168	Measurement of Strain Distribution of Hallux Nail in Normal Gait. **2018**, 54, 98-107	1
167	Identification of seismic signals at the output of large ring laser gyroscopes. **2018**,	
166	Rapid energy expenditure estimation for assisted and inclined loaded walking.	
165	Validity Evaluation of the Fitbit Charge2 and the Garmin vivosmart HR+ in Free-Living Environments in an Older Adult Cohort (Preprint).	
164	Analysis of Human Gait for Designing a Recognition and Classification System. **2019**, 186-200	
163	Vision-Based Marker-Less Spatiotemporal Gait Analysis by Using a Mobile Platform: Preliminary Validation. **2019**, 126-141	
162	Low-cost intrinsic optical fiber FPI sensor for knee kinematic gait analysis and e-Health architecture. **2019**,	1

161	Sensors Used for Human Gait Monitoring. **2020**, 518-524		
160	Towards a Complete Gait Analysis using Optical Fiber Bragg Gratings. **2019**,		0
159	A survey on Alzheimer disease detection using gait analysis. **2020**, 22, 10-27		1
158	A Comprehensive Review of Wearable Applications and Material Construction. **2020**, 10, 364-408		1
157	Independent and sensitive gait parameters for objective evaluation in knee and hip osteoarthritis using wearable sensors.		
156	System for Analysis of Human Gait Using Inertial Sensors. **2021**, 283-292		
155	. **2020**,		0
154	The feasibility and validity of a wearable sensor system to assess the stability of high-functioning lower-limb prosthesis users. **2020**, Online first,		
153	A Standalone Real-Time Gait Phase Detection Using Fuzzy-Logic Implementation in Arduino Nano. **2022**, 3, 1		
152	Joint Constraints Based Dynamic Calibration of IMU Position on Lower Limbs in IMU-MoCap. *Sensors*, **2021**, 21,	3.8	0
151	Evaluation of Muscle Function by Means of a Muscle-Specific and a Global Index. *Sensors*, **2021**, 21,	3.8	0
150	Impacts of Mobility Dogs on Kinematics during Ambulation: A Quantitative Study. **2021**, 8,		
149	Validity and Reliability of an Inertial Sensor Device for Specific Running Patterns in Soccer. *Sensors*, **2021**, 21,	3.8	1
148	Use of wearable inertial sensors for the assessment of spatiotemporal gait variables in children: A systematic review. **2020**, 26,		2
147	Machine Learning in Wearable Biomedical Systems.		5
146	The test-retest reliability of gait kinematic data measured using a portable gait analysis system in healthy adults. **2020**, 27, 25-34		
145	Designing a Randomized Trial with an Age Simulation Suit-Representing People with Health Impairments. **2020**, 9,		2
144	The Impact of Reducing the Number of Wearable Devices on Measuring Gait in Parkinson Disease: Noninterventional Exploratory Study (Preprint).		

143	Human Gait Recognition. **2020**, 325-332	
142	Utilizing Machine Learning to Recognize Human Activities for Elderly and Homecare. **2020**, 28, 196-201	0
141	Is Sharing of Egocentric Video Giving Away Your Biometric Signature?. **2020**, 399-416	2
140	Monitoring the Gait Process During the Rehabilitation of Patients Using Computer Vision Techniques and UWB Technology. **2020**, 419-437	2
139	UPDRS Label Assignment by Analyzing Accelerometer Sensor Data Collected from Conventional Smartphones. **2020**, 173-182	
138	Real-time kinematic-based detection of foot-strike during walking. **2021**, 129, 110849	1
137	Tight coupling of human walking and a four-legged walking-device inspired by insect six-legged locomotion. **2020**, 2, 036001	
136	On the Measurement of Dynamic Stability of Normal and Osteoarthritic Human Knee During Ascending and Descending the Stairs. **2021**, 543-555	
135	Recognizing Camera Wearer from Hand Gestures in Egocentric Videos. **2020**,	1
134	Immediate Postoperative Improvement in Gait Parameters following Primary Total Knee Arthroplasty Can Be Measured with an Insole Sensor Device. **2020**,	1
133	Influence of the Backpack on School Children Gait: A Statistical and Machine Learning Approach. **2021**, 682-688	0
132	Simple Smartphone-Based Assessment of Gait Characteristics in Parkinson Disease: Validation Study (Preprint).	
131	Applications of Inertial Navigation Systems in Medical Engineering. **2018**, 8, 325-332	1
130	Dynamic time warping approach for optimized locomotor impairment detection using biomedical signal processing. **2022**, 72, 103321	3
129	Effects of Light Conditions and Falls Concerns on Older Adults Gait Characteristics: A Preliminary Study. **2021**, 65, 1332-1336	1
128	Towards Fuzzy Context-Aware Automatic Gait Assessments in Free-Living Environments. **2022**, 463-474	0
127	Differences in Gait Stability and Acceleration Characteristics Between Healthy Young and Older Females. 2,	1
126	Video-Based Deep Learning Approach for 3D Human Movement Analysis in Institutional Hallways: A Smart Hallway. **2021**, 9, 130	

125	Performance of Sonomyographic and Electromyographic Sensing for Continuous Estimation of Joint Torque During Ambulation on Multiple Terrains. **2021**, PP,		3
124	I-Gressus: Low-Cost Plantar Gait Monitoring System for Clinical Diagnosis. **2020**,		
123	Analysis of the effect of muscle fatigue on gait characteristics using data acquired by wearable sensors. **2020**,		
122	The impact of first metatarsophalangeal angle on the gait features measured by an in-shoe motion sensor. **2020**,		2
121	Gait analysis of transfemoral amputees with and without active feedback. **2020**,		
120	F-VESPA: A Kinematic-based Algorithm for Real-time Heel-strike Detection During Walking. **2021**,		0
119	Smart Shoes for Gait and Mobility Assessment. **2021**,		
118	Enhanced Attitude and Altitude Estimation for Indoor Autonomous UAVs. **2022**, 6, 18		2
117	Near-Field Electrospinning: Crucial Parameters, Challenges, and Applications.. **2022**,		8
116	The application of artificial intelligence and custom algorithms with inertial wearable devices for gait analysis and detection of gait-altering pathologies in adults: A scoping review of literature.. **2022**, 8, 20552076221074128		1
115	A 3D-Printed Knee Wearable Goniometer with a Mobile-App Interface for Measuring Range of Motion and Monitoring Activities.. *Sensors*, **2022**, 22,	3.8	1
114	Gait analysis: overview, trends, and challenges. **2022**, 53-64		
113	Development of a Robust, Simple, and Affordable Human Gait Analysis System Using Bottom-Up Pose Estimation With a Smartphone Camera.. **2021**, 12, 784865		2
112	An Introduction to Wearable Sensor Technology. **2022**, 189-198		0
111	Competent and Affordable Rehabilitation Robots for Nervous System Disorders Powered with Dynamic CNN and HMM. **2022**, 57-93		1
110	An insight into Transfemoral Prostheses: Materials, modelling, simulation, fabrication, testing, clinical evaluation and performance perspectives.. **2022**, 1-18		0
109	Smart Eyeglasses: A Valid and Reliable Device to Assess Spatiotemporal Parameters during Gait.. *Sensors*, **2022**, 22,	3.8	0
108	Automated Detection of Rehabilitation Exercise by Stroke Patients Using 3-Layer CNN-LSTM Model.. **2022**, 2022, 1563707		1

107	Symbol Error Rate based approach to explore the best location for central node placement in On-body WBAN. **2022**,		
106	Validation of Inertial Measurement Unit-Based Motion Capture with a Single Calibration File for Assessing Gait in Healthy Young Adults.		
105	Fusion of Wearable Kinetic and Kinematic Sensors to Estimate Triceps Surae Work during Outdoor Locomotion on Slopes.. *Sensors*, **2022**, 22,	3.8	1
104	Applications and limitations of current markerless motion capture methods for clinical gait biomechanics.. **2022**, 10, e12995		6
103	Types of anomalies in two-dimensional video-based gait analysis in uncontrolled environments.		
102	Walking orientation randomness metric (WORM) score: pilot study of a novel gait parameter to assess walking stability and discriminate fallers from non-fallers using wearable sensors.. **2022**, 23, 304		0
101	Pyrrole Coating with In Situ Polymerization for Piezoresistive Sensor Development - A Review. **2022** , 30, 153-162		0
100	The reliability test of a smart insole for gait analysis in stroke patients. **2022**, 29, 30-40		
99	Detection of Human Gait Phases Using Textile Pressure Sensors: A Low Cost and Pervasive Approach.. *Sensors*, **2022**, 22,	3.8	
98	Insole Gait Acquisition System Based on Wearable Sensors. **2021**, 10,		1
97	Investigation of the analysis of wearable data for cancer-specific mortality prediction in older adults. **2021**, 2021, 1848-1851		1
96	The Impact of Load Style Variation on Gait Recognition Based on sEMG Images Using a Convolutional Neural Network.. *Sensors*, **2021**, 21,	3.8	0
95	A Wearable Biofeedback Device to Increase Gait Swing Time Could Have Positive Effects on Gait among Older Adults.. *Sensors*, **2021**, 22,	3.8	1
94	Assessment of Stability of MIMU Probes to Skin-Marker-Based Anatomical Reference Frames During Locomotion Tasks: Effect of Different Locations on the Lower Limb.. **2021**, 9, 721900		0
93	Statistical Gait Analysis Based on Surface Electromyography. **2022**, 23-35		
92	Gait Data analysis: Investigation of Normal Gait Response to Different Speeds Using Inertial Measurement Unit. **2021**,		
91	Recent Trends and Practices Toward Assessment and Rehabilitation of Neurodegenerative Disorders: Insights From Human Gait.. **2022**, 16, 859298		1
90	Consensus Paper: Ataxic Gait.. **2022**, 1		1

89	Application of Wearable Sensors in the Treatment of Cervical Spondylosis Radiculopathy with Acupuncture.. **2022**, 2022, 8428518		
88	Ground Contact Time Estimating Wearable Sensor to Measure Spatio-Temporal Aspects of Gait.. *Sensors*, **2022**, 22,	3.8	0
87	Video Camera in the Ambient Assisted Living System. Health Versus Privacy. **2022**, 55-76		
86	Next Steps in Epidermal Computing: Opportunities and Challenges for Soft On-Skin Devices. **2022**,		0
85	A Novel Walking Activity Recognition Model for Rotation Time Series Collected by a Wearable Sensor in a Free-Living Environment.. *Sensors*, **2022**, 22,	3.8	1
84	A comprehensive survey on gait analysis: History, parameters, approaches, pose estimation, and future work. **2022**, 102314		1
83	Machine Learning Strategies for Low-Cost Insole-Based Prediction of Center of Gravity during Gait in Healthy Males.. *Sensors*, **2022**, 22,	3.8	0
82	Students Behaviors Analysis in Classroom Context Using IoT: A Systematic Mapping Study. **2022**, 401-412		
81	A Unified Local Global Feature Extraction Network for Human Gait Recognition Using Smartphone Sensors. *Sensors*, **2022**, 22, 3968	3.8	
80	Lower limb models used for biomechanical analysis of human walking. **2022**, 357, 03006		
79	Evaluation of lower extremity gait analysis using Kinect V2 tracking system. **2022**, 8, 27		
78	Development and Validation of a Closed-Loop Functional Electrical Stimulation-Based Controller for Gait Rehabilitation Using a Finite State Machine Model. **2022**, 30, 1642-1651		0
77	Past, Present and Future of Assistive Robotic Lower Limb Exoskeletons. **2022**, 357, 03005		
76	Video Camera in the Ambient Assisted Living System Health Versus Privacy. **2022**, 317-348		
75	Agreement, Reliability, and Concurrent Validity of an Outdoor, Wearable-Based Walk Ratio Assessment in Healthy Adults and Chronic Stroke Survivors. 13,		0
74	Laser-carbonized MXene/ZiF-67 nanocomposite as an intermediate layer for boosting the output performance of fabric-based triboelectric nanogenerator. **2022**, 100, 107462		0
73	IoT-Based Sensor Shoes System for Gait Correction. **2022**, 10, 62-68		1
72	Wearable and Non-wearable Technology Assisted Assessment and Rehabilitation approaches for Gait Improvement among the Patients with Knee Arthroplasty: A Systematic Review. **2022**, 19, 473-486		

71	Wearable Sensor Systems for Fall Risk Assessment: A Review. 4,	2
70	Smart insoles review over the last two decade: Applications, potentials, and future. **2022**, 100301	2
69	A review on bending analysis of polymer-based flexible patch antenna for IoT and wireless applications. **2022**,	
68	Design and development of foot worn piezoresistive sensor for knee pain analysis with supervised machine learning algorithms based on gait pattern. **2022**, 200, 111603	
67	Validity and Repeatability of Inertial Measurement Unit for Measuring Walking Gait Parameter of Patients with Non-specific Low Back Pain. 45-51	1
66	Single-input single-output multi-touch soft sensor systems using band-pass filters. **2022**, 6,	
65	A Multi-Modal Gait Database of Natural Everyday-Walk in an Urban Environment. **2022**, 9,	1
64	Reliability and validity analysis of personality assessment model based on gait video. 16,	0
63	Research and application advances in rehabilitation assessment of stroke. **2022**, 23, 625-641	1
62	A Human Gait Tracking System Using Dual Foot-Mounted IMU and Multiple 2D LiDARs. **2022**, 22, 6368	1
61	Inertial measurement unit-based motion capture to replace camera-based systems for assessing gait in healthy young adults: Proceed with caution. **2022**, 23, 100396	0
60	Recording context matters: Differences in gait parameters collected by the OneStep smartphone application. **2022**, 99, 105755	0
59	Gait Analysis and Phase Recognition Based on Array Fiber Optic Sensing Insole. **2022**, 37-48	0
58	Gait parameters, selected anthropometric variables, psychological status, and performance level among professional basketball players in Lagos. **2022**, 22, 66	0
57	Activity-based person identification using multimodal wearable sensor data. **2022**, 1-1	0
56	A comparative performance analysis of backpropagation training optimizers to estimate clinical gait mechanics. **2022**, 83-104	0
55	Energy harvesting from a piezo buzzer with Schottky diode and complementary MOSFET full-bridge rectifiers. **2022**,	0
54	Towards personalized environment-aware outdoor gait analysis using a smartphone.	0

53	Walking parameters of older adults from a lower back inertial measurement unit, a 6-year longitudinal observational study. 14,	2
52	Analysis and Evaluation of Hemiplegic Gait Based on Wearable Sensor Network. **2022**,	1
51	Smart Lacelock: A Novel Shoelace Tensioning Device for Human Motion Sensing. **2022**, 22, 18349-18358	0
50	Very Simple System for Walking-Speed Measurement in Geriatric Patients. **2022**, 11, 3159	0
49	Portable RGB-D Camera-Based System for Assessing Gait Impairment Progression in ATTRv Amyloidosis. **2022**, 12, 10203	0
48	Wearables for Running Gait Analysis: A Systematic Review.	5
47	Development of Lower Limb Exoskeleton for Walking Assistance Using Energy Recycled From Human Knee Joint. 1-34	0
46	A Flexible, Stretchable and Triboelectric Smart Sensor Based on Graphene Oxide and Polyacrylamide Hydrogel for High Precision Gait Recognition in Parkinsonian and Hemiplegic Patients. **2022**, 107978	0
45	Using Sensor Technology to Measure Gait Capacity and Gait Performance in Rehabilitation Inpatients with Neurological Disorders. **2022**, 22, 8387	0
44	Classifying gait alterations using an instrumented smart sock and deep learning. **2022**, 1-1	1
43	Development of´a´MIot Gait Tracking Platform. **2023**, 431-436	0
42	A high-pressure resistant ternary network hydrogel based flexible strain sensor with a uniaxially oriented porous structure toward gait detection. **2022**, 18, 9231-9241	0
41	Analysis of Human Gait Cycle With Body Equilibrium Based on Leg Orientation. **2022**, 10, 123177-123189	0
40	Microphone Mechanomyography Sensors for Movement Analysis and Identification. **2022**,	0
39	Design of exergames controlled by wearable devices for sensorimotor skills: a framework proposal. **2022**,	0
38	Simultaneous Step Counting and Energy Harvesting from Piezoelectric Discs Embedded in a Shoe. **2022**,	0
37	Recent Advances in Multifunctional Wearable Sensors and Systems: Design, Fabrication, and Applications. **2022**, 12, 1057	0
36	A novel gait analysis system for detecting abnormal hemiparetic gait patterns during robot-assisted gait training: A criterion validity study among healthy adults. 16,	0

35	Present and future of gait assessment in clinical practice: Towards the application of novel trends and technologies. 4,	1
34	Do we still need to screen our patients?Orthopaedic scoring based on motion tracking.	0
33	Advances in self-powered sports monitoring sensors based on triboelectric nanogenerators. **2023**,	0
32	The Effect of Lateral Wedge Insole on Gait Variability Assessed Using Wearable Sensors in Patients with Medial Compartment Knee Osteoarthritis. **2023**, 2023, 1-7	0
31	Effects of passive interpersonal light touch during walking on postural control responses: An exploratory study. **2023**, 87, 103051	0
30	Imitation Behavior of the Outer Edge of the Foot by Humanoids Using a Simplified Contact State Representation. **2022**,	0
29	Gait Analysis-Based Identification of Neurodegenerative Diseases Using Machine Learning Techniques. **2022**,	0
28	Wearable-Gait-Analysis-Based Activity Recognition: A Review. **2022**, 15,	0
27	Validation of an Ear-Worn Wearable Gait Analysis Device. **2023**, 23, 1244	1
26	Silk Fibroin-Based Piezoelectric Sensor with Carbon Nanofibers for Wearable Health Monitoring Applications. **2023**, 23, 1373	0
25	Types of anomalies in two-dimensional video-based gait analysis in uncontrolled environments. **2023**, 19, e1009989	0
24	Human Personality Assessment Based on Gait Pattern Recognition Using Smartphone Sensors. **2023**, 46, 2351-2368	0
23	Time-Based and Path-Based Analysis of Upper-Limb Movements during Activities of Daily Living. **2023**, 23, 1289	0
22	Smart clothing and wearable technology in medical and healthcare applications. **2023**, 573-581	0
21	A scoping review on recent trends in wearable sensors to analyze gait in people with stroke: From sensor placement to validation against gold-standard equipment. 095441192211423	0
20	Machine Learning Enabled Hind Foot Deformity Detection Using Individually Addressable Hybrid Pressure Sensor Matrix. **2023**,	0
19	Fall detection from a manual wheelchair: preliminary findings based on accelerometers using machine learning techniques. 1-9	0
18	Machine Learning Algorithms in Human Gait Analysis. **2022**, 922-937	0

17	DeePaGait: Motor Assessment of Parkinson's Disease Using a Multi-Layer 1D Convolutional Neural Network on Smartphone Gait Data. **2022**,	0
16	Reliability of Wearable Sensors for Assessing Gait and Chair Stand Function at Home in People With Knee Osteoarthritis.	0
15	Machine Learning-Based Gait Characterization Using Single IMU Sensor. **2022**,	0
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6	Factors Influencing the Clinical Adoption of Quantitative Gait Analysis Technologies for Adult Patient Populations With a Focus on Clinical Efficacy and Clinician Perspectives: Protocol for a Scoping Review (Preprint).	0
5	Factors Influencing the Clinical Adoption of Quantitative Gait Analysis Technologies for Adult Patient Populations With a Focus on Clinical Efficacy and Clinician Perspectives: Protocol for a Scoping Review. 12, e39767	0
4	STJA-GCN: A Multi-Branch Spatial-Temporal Joint Attention Graph Convolutional Network for Abnormal Gait Recognition. **2023**, 13, 4205	0
3	A Smart and Home-based Telerehabilitation Tool for Patients with Neuromuscular Disorder. **2022**,	0
2	One-Step Gait Pattern Analysis of Hip Osteoarthritis Patients Based on Dynamic Time Warping through Ground Reaction Force. **2023**, 13, 4665	0
1	IoT-Enabled Gait Assessment: The Next Step for Habitual Monitoring. **2023**, 23, 4100	0