

Nigel H Lovell

List of Publications by Year in descending order

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Version: 2024-02-01

521
papers

16,219
citations

25014

57
h-index

27389

106
g-index

533
all docs

533
docs citations

533
times ranked

14461
citing authors

#	ARTICLE	IF	CITATIONS
1	Implementation of a Real-Time Human Movement Classifier Using a Triaxial Accelerometer for Ambulatory Monitoring. IEEE Transactions on Information Technology in Biomedicine, 2006, 10, 156-167.	3.6	1,005
2	Accelerometry: providing an integrated, practical method for long-term, ambulatory monitoring of human movement. Physiological Measurement, 2004, 25, R1-R20.	1.2	694
3	Conducting polymers for neural interfaces: Challenges in developing an effective long-term implant. Biomaterials, 2008, 29, 3393-3399.	5.7	677
4	A review of tactile sensing technologies with applications in biomedical engineering. Sensors and Actuators A: Physical, 2012, 179, 17-31.	2.0	576
5	Classification of basic daily movements using a triaxial accelerometer. Medical and Biological Engineering and Computing, 2004, 42, 679-687.	1.6	369
6	The use of photoplethysmography for assessing hypertension. Npj Digital Medicine, 2019, 2, 60.	5.7	359
7	Barometric Pressure and Triaxial Accelerometry-Based Falls Event Detection. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 619-627.	2.7	257
8	Cell attachment functionality of bioactive conducting polymers for neural interfaces. Biomaterials, 2009, 30, 3637-3644.	5.7	238
9	Sensors-Based Wearable Systems for Monitoring of Human Movement and Falls. IEEE Sensors Journal, 2012, 12, 658-670.	2.4	236
10	Organic electrode coatings for next-generation neural interfaces. Frontiers in Neuroengineering, 2014, 7, 15.	4.8	211
11	Detection of daily physical activities using a triaxial accelerometer. Medical and Biological Engineering and Computing, 2003, 41, 296-301.	1.6	205
12	Using information technology to improve the management of chronic disease. Medical Journal of Australia, 2003, 179, 242-246.	0.8	176
13	Substrate dependent stability of conducting polymer coatings on medical electrodes. Biomaterials, 2012, 33, 5875-5886.	5.7	175
14	Wearable Sensing and Telehealth Technology with Potential Applications in the Coronavirus Pandemic. IEEE Reviews in Biomedical Engineering, 2021, 14, 48-70.	13.1	174
15	Conductive Hydrogels: Mechanically Robust Hybrids for Use as Biomaterials. Macromolecular Bioscience, 2012, 12, 494-501.	2.1	168
16	Impact of co-incorporating laminin peptide dopants and neurotrophic growth factors on conducting polymer properties. Acta Biomaterialia, 2010, 6, 63-71.	4.1	163
17	Tracking the Evolution of Smartphone Sensing for Monitoring Human Movement. Sensors, 2015, 15, 18901-18933.	2.1	157
18	Classification of a known sequence of motions and postures from accelerometry data using adapted Gaussian mixture models. Physiological Measurement, 2006, 27, 935-951.	1.2	152

#	ARTICLE	IF	CITATIONS
19	Focal activation of the feline retina via a suprachoroidal electrode array. <i>Vision Research</i> , 2009, 49, 825-833.	0.7	152
20	CMOS neurostimulation ASIC with 100 channels, scalable output, and bidirectional radio-frequency telemetry. <i>IEEE Transactions on Biomedical Engineering</i> , 2001, 48, 248-260.	2.5	147
21	Simulating prosthetic vision: I. Visual models of phosphenes. <i>Vision Research</i> , 2009, 49, 1493-1506.	0.7	142
22	Remote monitoring of health status of the elderly at home. A multidisciplinary project on aging at the University of New South Wales. <i>International Journal of Bio-medical Computing</i> , 1995, 40, 147-155.	0.5	134
23	A pilot study of long-term monitoring of human movements in the home using accelerometry. <i>Journal of Telemedicine and Telecare</i> , 2004, 10, 144-151.	1.4	134
24	Patients'™ perceptions of a home telecare system. <i>International Journal of Medical Informatics</i> , 2008, 77, 486-498.	1.6	130
25	Ion Currents Underlying Sinoatrial Node Pacemaker Activity: A New Single Cell Mathematical Model. <i>Journal of Theoretical Biology</i> , 1996, 181, 245-272.	0.8	129
26	Wearable pendant device monitoring using new wavelet-based methods shows daily life and laboratory gaits are different. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 663-674.	1.6	126
27	From A to Z: Wearable technology explained. <i>Maturitas</i> , 2018, 113, 40-47.	1.0	126
28	Signal quality measures for pulse oximetry through waveform morphology analysis. <i>Physiological Measurement</i> , 2011, 32, 369-384.	1.2	123
29	Erratum to "Optimisation of a Generic Ionic Model of Cardiac Myocyte Electrical Activity". <i>Computational and Mathematical Methods in Medicine</i> , 2013, 2013, 1-1.	0.7	115
30	Direct Activation and Temporal Response Properties of Rabbit Retinal Ganglion Cells Following Subretinal Stimulation. <i>Journal of Neurophysiology</i> , 2009, 102, 2982-2993.	0.9	103
31	Developments in control systems for rotary left ventricular assist devices for heart failure patients: a review. <i>Physiological Measurement</i> , 2013, 34, R1-R27.	1.2	99
32	Homecare Robotic Systems for Healthcare 4.0: Visions and Enabling Technologies. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2020, 24, 2535-2549.	3.9	94
33	Estimating cognitive workload using wavelet entropy-based features during an arithmetic task. <i>Computers in Biology and Medicine</i> , 2013, 43, 2186-2195.	3.9	90
34	Cuffless Single-Site Photoplethysmography for Blood Pressure Monitoring. <i>Journal of Clinical Medicine</i> , 2020, 9, 723.	1.0	89
35	Beyond Subjective Self-Rating: EEG Signal Classification of Cognitive Workload. <i>IEEE Transactions on Autonomous Mental Development</i> , 2015, 7, 301-310.	2.3	87
36	QRS Detection Algorithm for Telehealth Electrocardiogram Recordings. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 1377-1388.	2.5	87

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37	The potential impact of home telecare on clinical practice. Medical Journal of Australia, 1999, 171, 518-521.	0.8	84
38	Longitudinal Falls-Risk Estimation Using Triaxial Accelerometry. IEEE Transactions on Biomedical Engineering, 2010, 57, 534-541.	2.5	81
39	Evaluation of stimulus parameters and electrode geometry for an effective suprachoroidal retinal prosthesis. Journal of Neural Engineering, 2010, 7, 036008.	1.8	80
40	Predicting the risk of exacerbation in patients with chronic obstructive pulmonary disease using home telehealth measurement data. Artificial Intelligence in Medicine, 2015, 63, 51-59.	3.8	80
41	Parameter estimation in cardiac ionic models. Progress in Biophysics and Molecular Biology, 2004, 85, 407-431.	1.4	79
42	Current Steering in Retinal Stimulation via a Quasimonopolar Stimulation Paradigm. , 2013, 54, 4307.		79
43	Retinal Neurostimulator for a Multifocal Vision Prosthesis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2007, 15, 425-434.	2.7	75
44	Electrocardiogram signal quality measures for unsupervised telehealth environments. Physiological Measurement, 2012, 33, 1517-1533.	1.2	74
45	Parameter-Optimized Model of Cardiovascularâ€™Rotary Blood Pump Interactions. IEEE Transactions on Biomedical Engineering, 2010, 57, 254-266.	2.5	73
46	Bionic vision: system architectures â€™ a review. Expert Review of Medical Devices, 2012, 9, 33-48.	1.4	72
47	Advances in Sweat Wearables: Sample Extraction, Real-Time Biosensing, and Flexible Platforms. ACS Applied Materials & Interfaces, 2020, 12, 34337-34361.	4.0	72
48	Can mHealth Technology Help Mitigate the Effects of the COVID-19 Pandemic?. IEEE Open Journal of Engineering in Medicine and Biology, 2020, 1, 243-248.	1.7	69
49	Quaternion-Based Complementary Filter for Attitude Determination of a Smartphone. IEEE Sensors Journal, 2016, 16, 6008-6017.	2.4	68
50	A web-based approach for electrocardiogram monitoring in the home. International Journal of Medical Informatics, 1999, 54, 145-153.	1.6	66
51	Attaining higher resolution visual prosthetics: a review of the factors and limitations. Journal of Neural Engineering, 2013, 10, 011002.	1.8	66
52	Multimodal Capacitive and Piezoresistive Sensor for Simultaneous Measurement of Multiple Forces. ACS Applied Materials & Interfaces, 2020, 12, 22179-22190.	4.0	66
53	Multi-Site Photoplethysmography Technology for Blood Pressure Assessment: Challenges and Recommendations. Journal of Clinical Medicine, 2019, 8, 1827.	1.0	65
54	Development of bioactive conducting polymers for neural interfaces. Expert Review of Medical Devices, 2010, 7, 35-49.	1.4	64

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55	A comparison of activity classification in younger and older cohorts using a smartphone. <i>Physiological Measurement</i> , 2014, 35, 2269-2286.	1.2	64
56	Bio-Inspired Conformable and Helical Soft Fabric Gripper with Variable Stiffness and Touch Sensing. <i>Advanced Materials Technologies</i> , 2020, 5, 2000724.	3.0	64
57	Theoretical Foundations of a Starling-Like Controller for Rotary Blood Pumps. <i>Artificial Organs</i> , 2012, 36, 787-796.	1.0	62
58	Characterization of a capacitive tactile shear sensor for application in robotic and upper limb prostheses. <i>Sensors and Actuators A: Physical</i> , 2011, 165, 164-172.	2.0	61
59	Novel neural interface for implant electrodes: improving electroactivity of polypyrrole through MWNT incorporation. <i>Journal of Materials Science: Materials in Medicine</i> , 2008, 19, 1625-1629.	1.7	60
60	Accelerometry Based Classification of Walking Patterns Using Time-frequency Analysis. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007, 2007, 4899-902.	0.5	59
61	Visual acuity measurement of prosthetic vision: a virtual-reality simulation study. <i>Journal of Neural Engineering</i> , 2005, 2, S135-S145.	1.8	58
62	In Vitro Biocompatibility of Various Polymer-Based Microelectrode Arrays for Retinal Prosthesis. , 2012, 53, 2653.		58
63	Blood Cell Classification Based on Hyperspectral Imaging With Modulated Gabor and CNN. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2020, 24, 160-170.	3.9	58
64	Conductive elastomer composites for fully polymeric, flexible bioelectronics. <i>Biomaterials Science</i> , 2019, 7, 1372-1385.	2.6	57
65	Assessing fall risk using wearable sensors: a practical discussion. <i>Zeitschrift Fur Gerontologie Und Geriatrie</i> , 2012, 45, 694-706.	0.8	56
66	Responses of Retinal Ganglion Cells to Extracellular Electrical Stimulation, from Single Cell to Population: Model-Based Analysis. <i>PLoS ONE</i> , 2012, 7, e53357.	1.1	56
67	Simulating prosthetic vision: II. Measuring functional capacity. <i>Vision Research</i> , 2009, 49, 2329-2343.	0.7	55
68	Change in pulse transit time and pre-ejection period during head-up tilt-induced progressive central hypovolaemia. <i>Journal of Clinical Monitoring and Computing</i> , 2007, 21, 283-293.	0.7	54
69	Advanced Intelligent Systems for Surgical Robotics. <i>Advanced Intelligent Systems</i> , 2020, 2, 1900138.	3.3	54
70	Activation of retinal ganglion cells following epiretinal electrical stimulation with hexagonally arranged bipolar electrodes. <i>Journal of Neural Engineering</i> , 2011, 8, 035004.	1.8	51
71	Web-based acquisition, storage, and retrieval of biomedical signals. <i>IEEE Engineering in Medicine and Biology Magazine</i> , 2001, 20, 38-44.	1.1	50
72	Low-Power Fall Detector Using Triaxial Accelerometry and Barometric Pressure Sensing. <i>IEEE Transactions on Industrial Informatics</i> , 2016, 12, 2302-2311.	7.2	50

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73	A bidomain model of epiretinal stimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2005, 13, 137-146.	2.7	49
74	Identification and Classification of Physiologically Significant Pumping States in an Implantable Rotary Blood Pump. Artificial Organs, 2006, 30, 671-679.	1.0	49
75	Differences Between Gait on Stairs and Flat Surfaces in Relation to Fall Risk and Future Falls. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 1479-1486.	3.9	49
76	Design of a Decision-Support Architecture for Management of Remotely Monitored Patients. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 1216-1226.	3.6	48
77	Contribution of arterial Windkessel in low-frequency cerebral hemodynamics during transient changes in blood pressure. Journal of Applied Physiology, 2011, 110, 917-925.	1.2	46
78	Noninvasive Average Flow Estimation for an Implantable Rotary Blood Pump: A New Algorithm Incorporating the Role of Blood Viscosity. Artificial Organs, 2007, 31, 45-52.	1.0	45
79	Mobile Phone Technologies in the Management of Ischemic Heart Disease, Heart Failure, and Hypertension: Systematic Review and Meta-Analysis. JMIR MHealth and UHealth, 2020, 8, e16695.	1.8	45
80	A Simplified 3D Model of Whole Heart Electrical Activity and 12-Lead ECG Generation. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-10.	0.7	44
81	Low-power technologies for wearable telecare and telehealth systems: A review. Biomedical Engineering Letters, 2015, 5, 1-9.	2.1	44
82	Current and Future Challenges in Point-of-Care Technologies: A Paradigm-Shift in Affordable Global Healthcare With Personalized and Preventive Medicine. IEEE Journal of Translational Engineering in Health and Medicine, 2015, 3, 1-10.	2.2	44
83	Review: Are we stumbling in our quest to find the best predictor? Over-optimism in sensor-based models for predicting falls in older adults. Healthcare Technology Letters, 2015, 2, 79-88.	1.9	44
84	Computationally Efficient Adaptive Error-State Kalman Filter for Attitude Estimation. IEEE Sensors Journal, 2018, 18, 9332-9342.	2.4	44
85	Encoding of tangential torque in responses of tactile afferent fibres innervating the fingerpad of the monkey. Journal of Physiology, 2010, 588, 1057-1072.	1.3	43
86	Soft robotic fabric gripper with gecko adhesion and variable stiffness. Sensors and Actuators A: Physical, 2021, 323, 112673.	2.0	43
87	Sensorless Flow and Head Estimation in the VentrAssist Rotary Blood Pump. Artificial Organs, 2000, 24, 585-588.	1.0	42
88	Starling-Like Flow Control of a Left Ventricular Assist Device: In Vitro Validation. Artificial Organs, 2014, 38, E46-E56.	1.0	42
89	Unintended Consequences of Wearable Sensor Use in Healthcare. Yearbook of Medical Informatics, 2016, 25, 73-86.	0.8	41
90	Vagal Control of Sinatrial Rhythm: a Mathematical Model. Journal of Theoretical Biology, 1996, 182, 21-44.	0.8	40

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91	The bionic eye (electronic visual prosthesis): A review. Australian and New Zealand Journal of Ophthalmology, 1998, 26, 195-202.	0.4	40
92	Automatic detection of left ventricular ejection time from a finger photoplethysmographic pulse oximetry waveform: comparison with Doppler aortic measurement. Physiological Measurement, 2007, 28, 439-452.	1.2	40
93	Spectral Analysis of Finger Photoplethysmographic Waveform Variability in a Model of Mild to Moderate Haemorrhage. Journal of Clinical Monitoring and Computing, 2008, 22, 343-353.	0.7	38
94	Spectral Analysis of Accelerometry Signals From a Directed-Routine for Falls-Risk Estimation. IEEE Transactions on Biomedical Engineering, 2011, 58, 2308-2315.	2.5	38
95	Exercise Studies in Patients With Rotary Blood Pumps: Cause, Effects, and Implications for Starling-Like Control of Changes in Pump Flow. Artificial Organs, 2013, 37, 695-703.	1.0	38
96	Spatially restricted electrical activation of retinal ganglion cells in the rabbit retina by hexapolar electrode return configuration. Journal of Neural Engineering, 2013, 10, 036013.	1.8	37
97	A living electrode construct for incorporation of cells into bionic devices. MRS Communications, 2017, 7, 487-495.	0.8	37
98	Estimating Lower Limb Kinematics Using a Reduced Wearable Sensor Count. IEEE Transactions on Biomedical Engineering, 2021, 68, 1293-1304.	2.5	37
99	ECG quality measures in telecare monitoring. , 2008, 2008, 2869-72.		36
100	Non-invasive classification of severe sepsis and systemic inflammatory response syndrome using a nonlinear support vector machine: a preliminary study. Physiological Measurement, 2010, 31, 775-793.	1.2	36
101	Numerical investigation of the effect of cannula placement on thrombosis. Theoretical Biology and Medical Modelling, 2013, 10, 35.	2.1	36
102	High-amplitude electrical stimulation can reduce elicited neuronal activity in visual prosthesis. Scientific Reports, 2017, 7, 42682.	1.6	36
103	Closed-Loop Efficient Searching of Optimal Electrical Stimulation Parameters for Preferential Excitation of Retinal Ganglion Cells. Frontiers in Neuroscience, 2018, 12, 168.	1.4	36
104	Robust PPG motion artifact detection using a 1-D convolution neural network. Computer Methods and Programs in Biomedicine, 2020, 196, 105596.	2.6	36
105	Vision function testing for a suprachoroidal retinal prosthesis: effects of image filtering. Journal of Neural Engineering, 2016, 13, 036013.	1.8	35
106	A small-scale randomised controlled trial of home telemonitoring in patients with severe chronic obstructive pulmonary disease. Journal of Telemedicine and Telecare, 2017, 23, 650-656.	1.4	35
107	Simulated prosthetic visual fixation, saccade, and smooth pursuit. Vision Research, 2005, 45, 775-788.	0.7	34
108	Falls Management: Detection and Prevention, using a Waist-mounted Triaxial Accelerometer. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4037-40.	0.5	33

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109	Non-invasive estimation of pulsatile flow and differential pressure in an implantable rotary blood pump for heart failure patients. <i>Physiological Measurement</i> , 2009, 30, 371-386.	1.2	33
110	Predicting Days in Hospital Using Health Insurance Claims. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2015, 19, 1224-1233.	3.9	33
111	The Effect of Electric Cross-Talk in Retinal Neurostimulation. , 2016, 57, 1031.		33
112	Information technology in primary health care. <i>International Journal of Medical Informatics</i> , 1999, 55, 9-22.	1.6	32
113	Determining activity using a triaxial accelerometer. , 0, , .		32
114	A Sliding Mode-Based σ -Tracking Like Controller for Implantable Rotary Blood Pumps. <i>Artificial Organs</i> , 2014, 38, 587-593.	1.0	32
115	Quasi-monopolar electrical stimulation of the retina: a computational modelling study. <i>Journal of Neural Engineering</i> , 2014, 11, 025002.	1.8	32
116	Multimodal Photoplethysmography-Based Approaches for Improved Detection of Hypertension. <i>Journal of Clinical Medicine</i> , 2020, 9, 1203.	1.0	32
117	HFAM: Soft Hydraulic Filament Artificial Muscles for Flexible Robotic Applications. <i>IEEE Access</i> , 2020, 8, 226637-226652.	2.6	32
118	A gradient model of cardiac pacemaker myocytes. <i>Progress in Biophysics and Molecular Biology</i> , 2004, 85, 301-323.	1.4	31
119	Simulated Unobtrusive Falls Detection With Multiple Persons. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 3185-3196.	2.5	31
120	Development of nanoparticle film-based multi-axial tactile sensors for biomedical applications. <i>Sensors and Actuators A: Physical</i> , 2013, 196, 38-47.	2.0	31
121	A Cardiovascular Mathematical Model of Graded Head-Up Tilt. <i>PLoS ONE</i> , 2013, 8, e77357.	1.1	31
122	Progress in artificial vision through suprachoroidal retinal implants. <i>Journal of Neural Engineering</i> , 2017, 14, 045002.	1.8	31
123	An Adapted Gaussian Mixture Model Approach to Accelerometry-Based Movement Classification Using Time-Domain Features. , 2006, 2006, 3600-3.		30
124	A quantitative analysis of head movement behaviour during visual acuity assessment under prosthetic vision simulation. <i>Journal of Neural Engineering</i> , 2007, 4, S108-S123.	1.8	30
125	Cytotoxicity of implantable microelectrode arrays produced by laser micromachining. <i>Biomaterials</i> , 2010, 31, 886-893.	5.7	30
126	Can Triaxial Accelerometry Accurately Recognize Inclined Walking Terrains?. <i>IEEE Transactions on Biomedical Engineering</i> , 2010, 57, 2506-2516.	2.5	30

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127	A continuum model of retinal electrical stimulation. <i>Journal of Neural Engineering</i> , 2011, 8, 066006.	1.8	30
128	Design, Fabrication, and Hysteresis Modeling of Soft Microtubule Artificial Muscle (SMAM) for Medical Applications. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 5089-5096.	3.3	30
129	A wearable triaxial accelerometry system for longitudinal assessment of falls risk. , 2008, 2008, 2840-3.		29
130	Frequency spectrum analysis of finger photoplethysmographic waveform variability during haemodialysis. <i>Physiological Measurement</i> , 2010, 31, 1203-1216.	1.2	29
131	Fingertip photoplethysmographic waveform variability and systemic vascular resistance in intensive care unit patients. <i>Medical and Biological Engineering and Computing</i> , 2011, 49, 859-866.	1.6	29
132	Healthcare Engineering Defined: A White Paper. <i>Journal of Healthcare Engineering</i> , 2015, 6, 635-648.	1.1	29
133	Conductive Hydrogel Electrodes for Delivery of Long-Term High Frequency Pulses. <i>Frontiers in Neuroscience</i> , 2017, 11, 748.	1.4	29
134	Research and clinical assessment of eating and exercise behaviour. <i>British Journal of Hospital Medicine</i> , 1999, 60, 481-485.	0.3	28
135	Peripheral photoplethysmography variability analysis of sepsis patients. <i>Medical and Biological Engineering and Computing</i> , 2011, 49, 337-347.	1.6	28
136	Frequency-dependent reduction of voltage-gated sodium current modulates retinal ganglion cell response rate to electrical stimulation. <i>Journal of Neural Engineering</i> , 2011, 8, 066007.	1.8	28
137	Integrated electrode and high density feedthrough system for chip-scale implantable devices. <i>Biomaterials</i> , 2013, 34, 6109-6118.	5.7	28
138	Understanding the Retina: A Review of Computational Models of the Retina from the Single Cell to the Network Level. <i>Critical Reviews in Biomedical Engineering</i> , 2014, 42, 419-436.	0.5	28
139	Mediating Retinal Ganglion Cell Spike Rates Using High-Frequency Electrical Stimulation. <i>Frontiers in Neuroscience</i> , 2019, 13, 413.	1.4	28
140	Soft Microtubule Muscle-Driven 3-Axis Skin-Stretch Haptic Devices. <i>IEEE Access</i> , 2020, 8, 157878-157891.	2.6	28
141	Twisting and Braiding Fluid-Driven Soft Artificial Muscle Fibers for Robotic Applications. <i>Soft Robotics</i> , 2022, 9, 820-836.	4.6	28
142	Estimation of pressure pulse amplification between aorta and brachial artery using stepwise multiple regression models. <i>Physiological Measurement</i> , 2004, 25, 879-889.	1.2	27
143	Evaluation of an mHealth-Based Adjunct to Outpatient Cardiac Rehabilitation. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2018, 22, 1938-1948.	3.9	27
144	A Physiological Control System for an Implantable Heart Pump That Accommodates for Interpatient and Inpatient Variations. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 1167-1175.	2.5	27

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145	A Smartphone-Based Model of Care to Support Patients With Cardiac Disease Transitioning From Hospital to the Community (TeleClinical Care): Pilot Randomized Controlled Trial. JMIR MHealth and UHealth, 2022, 10, e32554.	1.8	27
146	Development and surgical implantation of a vision prosthesis model into the ovine eye. Clinical and Experimental Ophthalmology, 2002, 30, 36-40.	1.3	26
147	Noninvasive Average Flow and Differential Pressure Estimation for an Implantable Rotary Blood Pump Using Dimensional Analysis. IEEE Transactions on Biomedical Engineering, 2008, 55, 2094-2101.	2.5	26
148	Preload-Based Starling-Like Control for Rotary Blood Pumps: Numerical Comparison with Pulsatility Control and Constant Speed Operation. PLoS ONE, 2015, 10, e0121413.	1.1	26
149	A Low-Power Fall Detector Balancing Sensitivity and False Alarm Rate. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 1929-1937.	3.9	26
150	Modification of DiFrancesco-Noble equations to simulate the effects of vagal stimulation on in vivo mammalian sinoatrial node electrical activity. Annals of Biomedical Engineering, 1993, 21, 321-335.	1.3	25
151	Living electrodes: Tissue engineering the neural interface. , 2013, 2013, 6957-60.		25
152	A biopotential optrode array: operation principles and simulations. Scientific Reports, 2018, 8, 2690.	1.6	25
153	Accelerometry based classification of gait patterns using empirical mode decomposition. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	24
154	Falls event detection using triaxial accelerometry and barometric pressure measurement. , 2009, 2009, 6111-4.		24
155	Noninvasive Activity-based Control of an Implantable Rotary Blood Pump: Comparative Software Simulation Study. Artificial Organs, 2010, 34, E34-45.	1.0	24
156	Web versus App - compliance of patients in a telehealth diabetes management programme using two different technologies. Journal of Telemedicine and Telecare, 2012, 18, 476-480.	1.4	24
157	Numerical Optimization Studies of Cardiovascular-Rotary Blood Pump Interaction. Artificial Organs, 2012, 36, E110-24.	1.0	24
158	Polymer micro-fiber Bragg grating. Optics Letters, 2013, 38, 3359.	1.7	24
159	Electrical activity of ON and OFF retinal ganglion cells: a modelling study. Journal of Neural Engineering, 2016, 13, 025005.	1.8	24
160	Recommendation to Use Wearable-Based mHealth in Closed-Loop Management of Acute Cardiovascular Disease Patients During the COVID-19 Pandemic. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 903-908.	3.9	24
161	Fabrication of multi-layer, high-density micro-electrode arrays for neural stimulation and bio-signal recording. , 2007, , .		23
162	Gait patterns classification using spectral features. , 2008, , .		23

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163	Anatomy and Physiology of Left Ventricular Suction Induced by Rotary Blood Pumps. <i>Artificial Organs</i> , 2015, 39, 681-690.	1.0	23
164	Frequency analysis of photoplethysmogram and its derivatives. <i>Computer Methods and Programs in Biomedicine</i> , 2015, 122, 503-512.	2.6	23
165	Health-Enabling and Ambient Assistive Technologies: Past, Present, Future. <i>Yearbook of Medical Informatics</i> , 2016, 25, S76-S91.	0.8	23
166	Differential electrical responses in retinal ganglion cell subtypes: effects of synaptic blockade and stimulating electrode location. <i>Journal of Neural Engineering</i> , 2018, 15, 046020.	1.8	23
167	Bank note recognition for the vision impaired. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2006, 29, 229-233.	1.4	22
168	Assessment of Right Pump Outflow Banding and Speed Changes on Pulmonary Hemodynamics During Biventricular Support With Two Rotary Left Ventricular Assist Devices. <i>Artificial Organs</i> , 2011, 35, 807-813.	1.0	22
169	Multivariate classification of systemic vascular resistance using photoplethysmography. <i>Physiological Measurement</i> , 2011, 32, 1117-1132.	1.2	22
170	New Methods to Monitor Stair Ascents Using a Wearable Pendant Device Reveal How Behavior, Fear, and Frailty Influence Falls in Octogenarians. <i>IEEE Transactions on Biomedical Engineering</i> , 2015, 62, 2595-2601.	2.5	22
171	Convergence across Tactile Afferent Types in Primary and Secondary Somatosensory Cortices. <i>PLoS ONE</i> , 2014, 9, e107617.	1.1	22
172	Smart textiles using fluid-driven artificial muscle fibers. <i>Scientific Reports</i> , 2022, 12, .	1.6	22
173	Learning prosthetic vision: a virtual-reality study. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2005, 13, 249-255.	2.7	21
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