Branko G Celler

List of Publications by Year
in descending order

135 papers	4,960 citations	172443 29 h-index	98792 67 g-index
138 all docs	138 docs citations	138 times ranked	4624 citing authors

#	Article	IF	Citations
1	Artificial Intelligence Based Blood Pressure Estimation From Auscultatory and Oscillometric Waveforms: A Methodological Review. IEEE Reviews in Biomedical Engineering, 2022, 15, 152-168.	18.0	16
2	A Novel Automated Blood Pressure Estimation Algorithm Using Sequences of Korotkoff Sounds. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 1257-1264.	6.3	17
3	Human Motion Intent Description Based on Bumpless Switching Mechanism for Rehabilitation Robot. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 673-682.	4.9	5
4	Home telemonitoring for chronic disease management: Perceptions of users and factors influencing adoption. Health Informatics Journal, 2021, 27, 146045822199789.	2.1	18
5	Noise-assisted multivariate empirical mode decomposition based causal decomposition for brain-physiological network in bivariate and multiscale time series. Journal of Neural Engineering, 2021, 18, 046018.	3.5	4
6	Measuring blood pressure from Korotkoff sounds as the brachial cuff inflates on average provides higher values than when the cuff deflates. Physiological Measurement, 2021, , .	2.1	0
7	Are Korotkoff Sounds Reliable Markers for Accurate Estimation of Systolic and Diastolic Pressure Using Brachial Cuff Sphygmomanometry?. IEEE Transactions on Biomedical Engineering, 2021, 68, 3593-3601.	4.2	11
8	GMM-HMM-Based Blood Pressure Estimation Using Time-Domain Features. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 3631-3641.	4.7	30
9	Blood Pressure Estimation From Time-Domain Features of Oscillometric Waveforms Using Long Short-Term Memory Recurrent Neural Networks. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 3614-3622.	4.7	29
10	Continuous Description of Human 3D Motion Intent Through Switching Mechanism. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 277-286.	4.9	7
11	Nonparametric Model Prediction for Intelligent Regulation of Human Cardiorespiratory System to Prescribed Exercise Medicine. IEEE Access, 2020, 8, 224621-224630.	4.2	3
12	Blood Pressure Estimation From Beat-by-Beat Time-Domain Features of Oscillometric Waveforms Using Deep-Neural-Network Classification Models. IEEE Access, 2019, 7, 113427-113439.	4.2	23
13	Sliding€mode fault€tolerant control using the control allocation scheme. International Journal of Robust and Nonlinear Control, 2019, 29, 6256-6273.	3.7	6
14	Robust adaptive H$_{â^ž}$ control design for heart rate regulation during rhythmic exercises of unknown type. International Journal of Adaptive Control and Signal Processing, 2019, 33, 843-854.	4.1	2
15	Control allocation-based fault tolerant control. Automatica, 2019, 103, 408-417.	5.0	39
16	Control Allocation Based Sliding Mode Fault Tolerant Control. , 2019, , .		1
17	Blood Pressure Estimation Using Time Domain Features of Auscultatory Waveforms and GMM-HMM Classification Approach. , 2019, 2019, 208-211.		5
18	Blood Pressure Estimation Using Time Domain Features of Auscultatory Waveforms and Deep Learning. , 2019, 2019, 1821-1824.		8

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19	Neural Adaptive Backstepping Control of a Robotic Manipulator With Prescribed Performance Constraint. IEEE Transactions on Neural Networks and Learning Systems, 2019, 30, 3572-3583.	11.3	120
20	Static output feedback fault tolerant control using control allocation scheme. International Journal of Robust and Nonlinear Control, 2019, 29, 98-116.	3.7	8
21	A framework for optimal actuator/sensor selection in a control system. International Journal of Control, 2019, 92, 242-260.	1.9	15
22	Design of optimal sliding-mode control using partial eigenstructure assignment. International Journal of Control, 2019, 92, 1511-1523.	1.9	7
23	Novel frameworks for the design of faultâ€tolerant control using optimal slidingâ€mode control. International Journal of Robust and Nonlinear Control, 2018, 28, 3015-3032.	3.7	11
24	Dynamic characteristics of oxygen consumption. BioMedical Engineering OnLine, 2018, 17, 44.	2.7	2
25	State-Constrained Control of Single-Rod Electrohydraulic Actuator With Parametric Uncertainty and Load Disturbance. IEEE Transactions on Control Systems Technology, 2018, 26, 2242-2249.	5.2	41
26	Mixed H2/Hâˇž-based actuator selection for uncertain polytopic systems with regional pole placement. International Journal of Control, 2018, 91, 320-336.	1.9	7
27	Novel methods of testing and calibration of oscillometric blood pressure monitors. PLoS ONE, 2018, 13, e0201123.	2.5	22
28	Multi-Loop Integral Control-Based Heart Rate Regulation for Fast Tracking and Faulty-Tolerant Control Performance in Treadmill Exercises. , 2018, , .		0
29	A Novel Optimal Sliding Mode Control For Multiple Time-Delay Systems. , 2018, , .		1
30	Optimal Sparsely Distributed Static Output Feedback For Publisher/Subscriber Networked Systems With Parametric Uncertainties. , 2018, , .		1
31	Patient Adherence to Scheduled Vital Sign Measurements During Home Telemonitoring: Analysis of the Intervention Arm in a Before and After Trial. JMIR Medical Informatics, 2018, 6, e15.	2.6	27
32	Effect of Seasonal Variation on Clinical Outcome in Patients with Chronic Conditions: Analysis of the Commonwealth Scientific and Industrial Research Organization (CSIRO) National Telehealth Trial. JMIR Medical Informatics, 2018, 6, e16.	2.6	4
33	Heart rate regulation during cycle-ergometer exercise via event-driven biofeedback. Medical and Biological Engineering and Computing, 2017, 55, 483-492.	2.8	6
34	Improving the quality and accuracy of non-invasive blood pressure measurement by visual inspection and automated signal processing of the Korotkoff sounds. Physiological Measurement, 2017, 38, 1006-1022.	2.1	30
35	Online auto-calibration of triaxial accelerometer with time-variant model structures. Sensors and Actuators A: Physical, 2017, 266, 294-307.	4.1	11
36	Real-time identification of heart rate responses via auxiliary-model-based damped RLS scheme. , 2017, 2017, 1312-1315.		2

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37	Multiloop Integral Controllability Analysis for Nonlinear Multiple-Input Single-Output Processes. Industrial & Engineering Chemistry Research, 2017, 56, 8054-8065.	3.7	3
38	Nonparametric modelling of VO$_2$ response to exercise. , 2017, 2017, 1525-1528.		0
39	Analysis of the compliance with the measurement protocols scheduled in a telemonitoring system. , 2017, , .		0
40	Impact of At-Home Telemonitoring on Health Services Expenditure and Hospital Admissions in Patients With Chronic Conditions: Before and After Control Intervention Analysis. JMIR Medical Informatics, 2017, 5, e29.	2.6	34
41	WebRTC-based video conferencing service for telehealth. Computing (Vienna/New York), 2016, 98, 169-193.	4.8	44
42	Real-time modelling of heart rate response during exercise using a novel constrained parameter estimation method. , 2016, 2016, 2680-2683.		0
43	â€<inf>2</inf>/H<inf>âˆ</inf> based sliding mode control: A partial eigenstructure assignment method. , 2016, , .		2
44	Backstepping Control of Electro-Hydraulic System Based on Extended-State-Observer With Plant Dynamics Largely Unknown. IEEE Transactions on Industrial Electronics, 2016, 63, 6909-6920.	7.9	187
45	Telehealth Monitoring of Patients in the Community. Journal of Intelligent Systems, 2016, 25, 37-53.	1.6	23
46	Automatic bearing fault diagnosis using particle swarm clustering and Hidden Markov Model. Engineering Applications of Artificial Intelligence, 2016, 47, 88-100.	8.1	64
47	Model based methods for the analysis of non-stationary effects of telemonitoring as an intervention for the management of chronic conditions at home. , 2015, 2015, 1588-91.		2
48	Designing adaptive integral sliding mode control for heart rate regulation during cycle-ergometer exercise using bio-feedback. , 2015, 2015, 6688-91.		6
49	Heart rate regulation during cycle-ergometer exercise via bio-feedback. , 2015, 2015, 4639-42.		2
50	Non-Invasive measurement of blood pressure - Why we should look at BP traces rather than listen to Korotkoff sounds. , 2015, 2015, 5964-7.		14
51	Decentralized Integral Controllability Analysis Based on a New Unconditional Stability Criterion. IEEE Transactions on Automatic Control, 2015, 60, 211-215.	5.7	2
52	Home Telemonitoring of Vital Signsâ€"Technical Challenges and Future Directions. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 82-91.	6.3	56
53	On heart rate regulation in cycle-ergometer exercise. , 2014, 2014, 3390-3.		2
54	Design of a multi-site multi-state clinical trial of home monitoring of chronic disease in the community in Australia. BMC Public Health, 2014, 14, 1270.	2.9	31

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55	An equivalent circuit model for onset and offset exercise response. BioMedical Engineering OnLine, 2014, 13, 145.	2.7	14
56	Modelling and regulating of cardio-respiratory response for the enhancement of interval training. BioMedical Engineering OnLine, 2014, 13, 9.	2.7	7
57	Fault detection and identification spanning multiple processes by integrating PCA with neural network. Applied Soft Computing Journal, 2014, 14, 4-11.	7.2	34
58	A new unconditionally stable condition based on singular perturbation analysis. International Journal of Control, 2014, 87, 464-472.	1.9	1
59	Advanced portable remote monitoring system for the regulation of treadmill running exercises. Artificial Intelligence in Medicine, 2014, 61, 119-126.	6.5	14
60	Data Architecture for Telehealth Services Research: A Case Study of Home Tele-Monitoring. , 2013, , .		9
61	Robust Sounds of Activities of Daily Living Classification in Two-Channel Audio-Based Telemonitoring. International Journal of Telemedicine and Applications, 2013, 2013, 1-12.	2.0	2
62	Patients' Perceptions of a Home Telecare System. SpringerBriefs in Health Care Management and Economics, 2013, , 75-100.	0.4	2
63	A mathematical model of the cardiovascular system under graded exercise levels. International Journal of Bioinformatics Research and Applications, 2012, 8, 455.	0.2	2
64	Nonlinear Modeling Using Support Vector Machine for Heart Rate Response to Exercise. , 2012, , 255-270.		4
65	Machine Learning-based Nonlinear Model Predictive Control for Heart Rate Response to Exercise. , 2012, , 271-285.		3
66	Unsupervised machine-learning method for improving the performance of ambulatory fall-detection systems. BioMedical Engineering OnLine, 2012, 11, 9.	2.7	66
67	Robust online adaptive neural network control for the regulation of treadmill exercises. , 2011, 2011, 1005-8.		2
68	Fingertip photoplethysmographic waveform variability and systemic vascular resistance in intensive care unit patients. Medical and Biological Engineering and Computing, 2011, 49, 859-866.	2.8	29
69	An adaptive H_∞ control design for exercise-independent human heart rate regulation system. , 2011, , .		8
70	Identification of high-risk acute coronary syndromes by spectral analysis of ear photoplethysmographic waveform variability. Physiological Measurement, 2011, 32, 1181-1192.	2.1	11
71	Optimizing Heart Rate Regulation for Safe Exercise. Annals of Biomedical Engineering, 2010, 38, 758-768.	2.5	24
72	Design of a Decision-Support Architecture for Management of Remotely Monitored Patients. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 1216-1226.	3.2	48

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73	Dynamic Modelling of Heart Rate Response Under Different Exercise Intensity. Open Medical Informatics Journal, 2010, 4, 81-85.	1.0	13
74	Telehealth technologies for managing chronic disease - experiences from Australia and the UK. , 2010, 2010, 5267-9.		9
75	Modeling of human Heart Rate response during walking, cycling and rowing. , 2010, 2010, 2553-6.		9
76	Can Triaxial Accelerometry Accurately Recognize Inclined Walking Terrains?. IEEE Transactions on Biomedical Engineering, 2010, 57, 2506-2516.	4.2	30
77	Biosignal quality detection: An essential feature for unsupervised telehealth applications. , 2010, , .		9
78	The Use of an Energy Monitor in the Management of Diabetes: A Pilot Study. Diabetes Technology and Therapeutics, 2009, 11, 113-118.	4.4	20
79	Transient and steady state estimation of human oxygen uptake based on noninvasive portable sensor measurements. Medical and Biological Engineering and Computing, 2009, 47, 1111-1117.	2.8	16
80	Changes in left ventricular ejection time and pulse transit time derived from finger photoplethysmogram and electrocardiogram during moderate haemorrhage. Clinical Physiology and Functional Imaging, 2009, 29, 163-169.	1.2	16
81	Classification of walking patterns on inclined surfaces from accelerometry data. , 2009, , .		12
82	Assessing the human cardiovascular response to moderate exercise: feature extraction by support vector regression. Physiological Measurement, 2009, 30, 227-244.	2.1	23
83	Linear predictive modelling of gait patterns. , 2009, , .		4
84	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.	1.6	38
85	Nonlinear Modeling and Control of Human Heart Rate Response During Exercise With Various Work Load Intensities. IEEE Transactions on Biomedical Engineering, 2008, 55, 2499-2508.	4.2	121
86	Patientsâ€™ perceptions of a home telecare system. International Journal of Medical Informatics, 2008, 77, 486-498.	3.3	130
87	Feature extraction using an AM-FM model for gait pattern classification. , 2008, , .		3
88	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
89	Dual-microphone Sounds of Daily Life classification for telemonitoring in a noisy environment. , 2008, 2008, 4636-9.		8
90	A robust control design for heart rate tracking during exercise. , 2008, 2008, 2785-8.		10

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91	A New Mode of Lecturing for Self-Directed Learning—Virtual Classroom on a DVD. AIP Conference Proceedings, 2008, , .	0.4	1
92	Portable sensor based dynamic estimation of human oxygen uptake via nonlinear multivariable modelling. , 2008, 2008, 2431-4.		5
93	ECG quality measures in telecare monitoring. , 2008, 2008, 2869-72.		36
94	Heart Rate Regulation During Exercise with Various Loads: Identification and Nonlinear Hˆž Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 11618-11623.	0.4	7
95	Detecting Change in Left Ventricular Ejection Time During Head-Up Tilt-Induced Progressive Central Hypovolemia Using a Finger Photoplethysmographic Pulse Oximetry Wave Form. Journal of Trauma, 2008, 64, 390-397.	2.3	6
96	Cardiovascular Response Identification Based on Nonlinear Support Vector Regression. Communications in Computer and Information Science, 2008, , 202-213.	0.5	0
97	A nonlinear dynamic model for heart rate response to treadmill walking exercise. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2988-91.	0.5	10
98	The Business Case for Home Telecare: a Comparative Analysis Between the USA, Europe and Australasia. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6152.	0.5	2
99	Evaluation of PIR Detector Characteristics for Monitoring Occupancy Patterns of Elderly People Living Alone at Home. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 3802-5.	0.5	17
100	Time-Frequency Based Features for Classification of Walking Patterns. , 2007, , .		20
101	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.	2.1	40
102	Nonparametric Hammerstein Model Based Model Predictive Control for Heart Rate Regulation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2984-7.	0.5	23
103	Automated Sound Analysis System for Home Telemonitoring using Shifted Delta Cepstral Features. , 2007, , .		13
104	Identification and Control for Heart Rate Regulation During Treadmill Exercise. IEEE Transactions on Biomedical Engineering, 2007, 54, 1238-1246.	4.2	128
105	Change in pulse transit time and pre-ejection period during head-up tilt-induced progressive central hypovolaemia. Journal of Clinical Monitoring and Computing, 2007, 21, 283-293.	1.6	54
106	Oxygen Uptake Estimation in Humans During Exercise Using a Hammerstein Model. Annals of Biomedical Engineering, 2007, 35, 1898-1906.	2.5	26
107	Classification of a known sequence of motions and postures from accelerometry data using adapted Gaussian mixture models. Physiological Measurement, 2006, 27, 935-951.	2.1	152
108	A Clinical Monitoring and Management System for Residential Aged Care Facilities. , 2006, 2006, 3301-4.		9

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109	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.	3.2	1,005
110	Characterization of Passive Infrared Sensors for Monitoring Occupancy Pattern. , 2006, 2006, 5257-60.		17
111	Development of a Smart Health Monitoring and Evaluation System. , 2006, , .		1
112	Estimation of Oxygen Consumption for Moderate Exercises by Using a Hammerstein Model. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
113	An Adapted Gaussian Mixture Model Approach to Accelerometry-Based Movement Classification Using Time-Domain Features. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
114	Modelling and Control for Heart Rate Regulation during Treadmill Exercise. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
115	A gradient model of cardiac pacemaker myocytes. Progress in Biophysics and Molecular Biology, 2004, 85, 301-323.	2.9	31
116	Accelerometry: providing an integrated, practical method for long-term, ambulatory monitoring of human movement. Physiological Measurement, 2004, 25, R1-R20.	2.1	694
117	A pilot study of long-term monitoring of human movements in the home using accelerometry. Journal of Telemedicine and Telecare, 2004, 10, 144-151.	2.7	134
118	Phase Response of Model Sinoatrial Node Cells. Annals of Biomedical Engineering, 2003, 31, 271-283.	2.5	14
119	Using information technology to improve the management of chronic disease. Medical Journal of Australia, 2003, 179, 242-246.	1.7	176
120	The potential impact of home telecare on clinical practice. Medical Journal of Australia, 1999, 171, 518-521.	1.7	84
121	A web-based approach for electrocardiogram monitoring in the home. International Journal of Medical Informatics, 1999, 54, 145-153.	3.3	66
122	Review of Ionic Models of Vagal-Cardiac Pacemaker Control. Journal of Theoretical Biology, 1998, 192, 265-274.	1.7	10
123	Simulations of postvagal tachycardia at the single cell pacemaker level: A new hypothesis. Annals of Biomedical Engineering, 1997, 25, 769-782.	2.5	1
124	Ion Currents Underlying Sinoatrial Node Pacemaker Activity: A New Single Cell Mathematical Model. Journal of Theoretical Biology, 1996, 181, 245-272.	1.7	129
125	Vagal Control of Sinoatrial Rhythm: a Mathematical Model. Journal of Theoretical Biology, 1996, 182, 21-44.	1.7	40
126	Modification of DiFrancesco-Noble equations to simulate the effects of vagal stimulation onin vivo mammalian sinoatrial node electrical activity. Annals of Biomedical Engineering, 1993, 21, 321-335.	2.5	25

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127	Mathematical studies of the effects of acetylcholine on pacemaker activity in the mammalian sinoatrial node. , 1992, , .		0
128	Analysis of the time course of renal vascular and excretory responses to electrical stimulation of the renal efferent nerves. , 1992, , .		0
129	Investigation of post vagai tachycardias by analysis of the dynamics of cardiac period responses. , 1992, , .		0
130	Cardiac synchronised data acquisition and analysis of physiological variables. , 1992, , .		0
131	Dynamics of cardiac period responses after prolonged vagal stimulation in the dog. Annals of Biomedical Engineering, 1991, 19, 273-289.	2.5	12
132	Characteristics of cardiac period responses to prolonged vagal stimulation in dogs. Medical and Biological Engineering and Computing, 1989, 27, 595-602.	2.8	6
133	Vagal stimulation and cardiac slowing. Journal of the Autonomic Nervous System, 1984, 11, 226-231.	1.9	143
134	Control of the Heart Rate by External Stimuli. Nature, 1972, 238, 279-280.	27.8	34
135	Matlab Open Source Code: Noise-Assisted Multivariate Empirical Mode Decomposition Based Causal Decomposition for Causality Inference of Bivariate Time Series. Frontiers in Neuroinformatics, 0, 16, .	2.5	1