

Martin Cerny

List of Publications by Year in descending order

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Version: 2024-02-01

78
papers

738
citations

840119

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87
all docs

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docs citations

87
times ranked

766
citing authors

#	ARTICLE	IF	CITATIONS
1	Noninvasive Continuous Blood Pressure Estimation From Pulse Transit Time: A Review of the Calibration Models. <i>IEEE Reviews in Biomedical Engineering</i> , 2022, 15, 138-151.	13.1	31
2	Recent Trends, Construction, and Applications of Smart Textiles and Clothing for Monitoring of Health Activity: A Comprehensive Multidisciplinary Review. <i>IEEE Reviews in Biomedical Engineering</i> , 2022, 15, 36-60.	13.1	21
3	Quantitative and Comparative Analysis of Effectivity and Robustness for Enhanced and Optimized Non-Local Mean Filter Combining Pixel and Patch Information on MR Images of Musculoskeletal System. <i>Sensors</i> , 2021, 21, 4161.	2.1	2
4	Review: Development and Technical Design of Tangible User Interfaces in Wide-Field Areas of Application. <i>Sensors</i> , 2021, 21, 4258.	2.1	9
5	A Novel Method for the Detection of QRS Complex Using Vectorcardiographic Octants. , 2021, , .		1
6	A New Approach for Testing Fetal Heart Rate Monitors. <i>Sensors</i> , 2020, 20, 4139.	2.1	4
7	Control Methods for Transradial Prostheses Based on Remnant Muscle Activity and Its Relationship with Proprioceptive Feedback. <i>Sensors</i> , 2020, 20, 4883.	2.1	16
8	Towards to Optimal Wavelet Denoising Scheme—A Novel Spatial and Volumetric Mapping of Wavelet-Based Biomedical Data Smoothing. <i>Sensors</i> , 2020, 20, 5301.	2.1	6
9	Mathematical Model Based on the Shape of Pulse Waves Measured at a Single Spot for the Non-Invasive Prediction of Blood Pressure. <i>Processes</i> , 2020, 8, 442.	1.3	6
10	A Quantitative and Comparative Analysis of Edge Detectors for Biomedical Image Identification Within Dynamical Noise Effect. <i>Lecture Notes in Computer Science</i> , 2020, , 90-101.	1.0	1
11	A Proposal of Optimal Wavelet Filter Design for EGG Signal Decomposition based on Modified ABC Evolutionary Optimization. , 2019, , .		2
12	Segmentation of Articular Cartilage and Early Osteoarthritis based on the Fuzzy Soft Thresholding Approach Driven by Modified Evolutionary ABC Optimization and Local Statistical Aggregation. <i>Symmetry</i> , 2019, 11, 861.	1.1	3
13	Prediction Model of Alcohol Intoxication from Facial Temperature Dynamics Based on K-Means Clustering Driven by Evolutionary Computing. <i>Symmetry</i> , 2019, 11, 995.	1.1	8
14	Modeling of Articular Cartilage with Goal of Early Osteoarthritis Extraction Based on Local Fuzzy Thresholding Driven by Fuzzy C-Means Clustering. <i>Lecture Notes in Computer Science</i> , 2019, , 289-299.	1.0	0
15	Modeling and Features Extraction of Heel Bone Fracture Reparation Dynamical Process from X-Ray Images Based on Time Iteration Segmentation Model Driven by Gaussian Energy. <i>Lecture Notes in Computer Science</i> , 2019, , 300-310.	1.0	0
16	Autonomous Segmentation and Modeling of Brain Pathological Findings Based on Iterative Segmentation from MR Images. <i>Lecture Notes in Computer Science</i> , 2019, , 324-335.	1.0	3
17	Design and Analysis of LMMSE Filter for MR Image Data. <i>Lecture Notes in Computer Science</i> , 2019, , 336-348.	1.0	2
18	Recent Trends, Technical Concepts and Components of Computer-Assisted Orthopedic Surgery Systems: A Comprehensive Review. <i>Sensors</i> , 2019, 19, 5199.	2.1	33

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19	Application to train cognitive skills according to the CHC intelligence model. AIP Conference Proceedings, 2019, , .	0.3	2
20	Current Automatic Methods for Knee Cartilage Segmentation: A Review. , 2019, , .		4
21	Investigation of a Possibility of ECG and PPG Common Measurement. IFMBE Proceedings, 2019, , 851-855.	0.2	3
22	Proposal of Physical Model of Cardiovascular System; Improvement of Mock Circulatory Loop. IFMBE Proceedings, 2019, , 505-508.	0.2	2
23	Classification of Myopotentials of Handâ€™s Motions to Control Applications. IFMBE Proceedings, 2019, , 155-158.	0.2	0
24	Detection and Segmentation of Retinal Lesions in Retcam 3 Images Based on Active Contours Driven by Statistical Local Features. Advances in Electrical and Electronic Engineering, 2019, 17, .	0.2	1
25	Modeling and objectification of blood vessel calcification with using of multiregional segmentation. Vietnam Journal of Computer Science, 2018, 5, 279-289.	1.0	0
26	The New Approach for The Model of Cardiovascular System. IFAC-PapersOnLine, 2018, 51, 48-53.	0.5	4
27	Fuzzy Classification of Handâ€™s Motion. IFAC-PapersOnLine, 2018, 51, 354-359.	0.5	1
28	Optimization of Laser Therapy Parameters in Dependence of Spot Size. IFAC-PapersOnLine, 2018, 51, 360-365.	0.5	1
29	Modeling and Features Extraction of Blood Vessels based on Soft Regional Segmentation. IFAC-PapersOnLine, 2018, 51, 366-371.	0.5	0
30	Human Body Energy Harvesting Solutions for Wearable Technologies. , 2018, , .		7
31	Sensor based solution for cranial remodeling orthosis. , 2018, , .		0
32	Multipurpose Sensor for Human Movement Analysis. , 2018, , .		0
33	Electrooculography as a Tool For Managing Application. , 2018, , .		1
34	Thermal Energy Harvesting on the Bodily Surfaces of Arms and Legs through a Wearable Thermo-Electric Generator. Sensors, 2018, 18, 1927.	2.1	36
35	Multiregional Soft Segmentation Driven by Modified ABC Algorithm and Completed by Spatial Aggregation: Volumetric, Spatial Modelling and Features Extraction of Articular Cartilage Early Loss. Lecture Notes in Computer Science, 2018, , 385-394.	1.0	2
36	Analysis and Modelling of Heel Bone Fracture with Using of Active Contour Driven by Gaussian Energy and Features Extraction. Lecture Notes in Computer Science, 2018, , 405-414.	1.0	2

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37	Detection and Dynamical Tracking of Temperature Facial Distribution Caused by Alcohol Intoxication with Using of Modified OTSU Regional Segmentation. Lecture Notes in Computer Science, 2018, , 357-366.	1.0	2
38	Defibrillator educational devices. , 2017, , .		0
39	Intra- and inter-session reliability of traditional and entropy-based variables describing stance on a wobble board. Medical Engineering and Physics, 2017, 50, 29-34.	0.8	12
40	Analysis and Dynamical Simulation of Heart Rate Influence upon Physical Load. Lecture Notes in Computer Science, 2017, , 325-333.	1.0	0
41	Analysis and modeling of alcohol intoxication from IR images based on multiregional image segmentation and correlation with breath analysis. , 2017, , .		1
42	Segmentation and modeling of scattered RTG irradiation on quality of skiagraphy images in clinical conditions. , 2017, , .		1
43	Segmentation of Vascular Calcifications and Statistical Analysis of Calcium Score. Lecture Notes in Computer Science, 2017, , 455-464.	1.0	2
44	Modeling of Blood Perfusion in Dependence of Scanning Angle from LDPI Data. , 2017, , .		0
45	Objective Measurement of Hypertrophic Scars using Skin Colorimeter. , 2017, , .		1
46	Assessment of postural stability in stable and unstable conditions. Acta of Bioengineering and Biomechanics, 2017, 19, 89-94.	0.2	14
47	Estimation of walked distance using inertial sensors under real conditions. , 2016, 2016, 3147-3150.		3
48	Emergency horn detection using embedded systems. , 2016, , .		8
49	Model Kidney Function in Stabilizing of Blood Pressure. Lecture Notes in Computer Science, 2016, , 430-439.	1.0	0
50	Make life easier based on detection of eyes movements; laboratory measurement. IFAC-PapersOnLine, 2015, 48, 268-271.	0.5	1
51	Main motivation for installation of new living laboratory for health. , 2015, , .		2
52	Individualization of a vectorcardiographic model by a particle swarm optimization. Biomedical Signal Processing and Control, 2015, 22, 65-73.	3.5	4
53	The proposal of the smart home care solution with KNX components. , 2015, , .		9
54	Validation of Inverted Pendulum model for gait length calculation. , 2015, , .		0

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55	Methods for derivation of orthogonal leads from 12-lead electrocardiogram: A review. Biomedical Signal Processing and Control, 2015, 19, 23-34.	3.5	25
56	Pulse wave velocity measurement; developing process of new measuring device. , 2015, , .		4
57	Battery check test on pacemaker by advanced technique. , 2014, , .		3
58	Objective evaluation of body displacements during activities using the wearable inertial system ActimedARM. , 2014, 2014, 5972-5.		2
59	Dry contact less surface electrodes for bioelectrical measurements. , 2014, , .		2
60	A review of methods for non-invasive and continuous blood pressure monitoring: Pulse transit time method is promising?. Irbm, 2014, 35, 271-282.	3.7	199
61	Intravenous catheter transfer function distortion testing. , 2013, , .		0
62	ActimedARM - Design of a wearable system to monitor daily actimetry. , 2013, 2013, 1851-4.		5
63	Smart Communication Adviser for Remote Users. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2013, , 141-150.	0.2	2
64	Advanced Experimental Medical Diagnostic System Design and Realization. Elektronika Ir Elektrotehnika, 2012, 117, .	0.4	13
65	Sensor Network for Measurement and Analysis on Medical Devices Quality Control. Communications in Computer and Information Science, 2011, , 182-196.	0.4	24
66	Measurement and Diagnosis Assessment of Plethysmographycal Record. IFMBE Proceedings, 2011, , 320-323.	0.2	5
67	Biomedical Engineering Education under European Union Support. IFMBE Proceedings, 2011, , 16-19.	0.2	1
68	Automatic Ranking of Eye Movement in Electrooculographic Records. , 2010, , .		4
69	Software tool for direction deflection recognition based on patient's postural dysfunction. , 2010, , .		0
70	Continuous Noninvasive Blood Pressure Measurement by Near Infra Red CCD Camera and Pulse Transmit Time Systems. , 2010, , .		7
71	Notice of Retraction: Movement Activity Monitoring of Elderly People. , 2010, , .		7
72	Circadian Rhythm Monitoring in HomeCare Systems. IFMBE Proceedings, 2009, , 950-953.	0.2	10

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73	Multidisciplinary Education of Biomedical Engineers. IFMBE Proceedings, 2009, , 2155-2158.	0.2	2
74	Process of Multi Technical Education in Biomedical Engineers Curricula. , 2008, , .		2
75	The HomeCare and Circadian rhythm. , 2008, , .		20
76	The circadian cycle monitoring. , 2008, , .		20
77	Sensitivity analysis and application of transducers. , 2008, , .		32
78	HomeCare " Smart embedded biotelemetry system. , 2007, , 711-714.		46