

Gaetano Dario Gargiulo

List of Publications by Year in descending order

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Version: 2024-02-01

85
papers

1,659
citations

394286

19
h-index

345118

36
g-index

88
all docs

88
docs citations

88
times ranked

1516
citing authors

#	ARTICLE	IF	CITATIONS
1	Design of a 3D-Printed Hand Exoskeleton Based on Force-Myography Control for Assistance and Rehabilitation. <i>Machines</i> , 2022, 10, 57.	1.2	27
2	Detection of Aortic Valve Opening and Estimation of Pre-Ejection Period in Forcecardiography Recordings. <i>Bioengineering</i> , 2022, 9, 89.	1.6	19
3	Evaluation of Grip Force and Energy Efficiency of the "Federica" Hand. <i>Machines</i> , 2021, 9, 25.	1.2	15
4	Implementation of the Biological Muscle Mechanism in HASEL Actuators to Leverage Electrohydraulic Principles and Create New Geometries. <i>Actuators</i> , 2021, 10, 38.	1.2	3
5	Respiration Monitoring via Forcecardiography Sensors. <i>Sensors</i> , 2021, 21, 3996.	2.1	25
6	Biosignal-Based Human-Machine Interfaces for Assistance and Rehabilitation: A Survey. <i>Sensors</i> , 2021, 21, 6863.	2.1	28
7	A Novel Broadband Forcecardiography Sensor for Simultaneous Monitoring of Respiration, Infrasonic Cardiac Vibrations and Heart Sounds. <i>Frontiers in Physiology</i> , 2021, 12, 725716.	1.3	30
8	Wearable Bluetooth Triage Healthcare Monitoring System. <i>Sensors</i> , 2021, 21, 7586.	2.1	15
9	Characterisation of Morphic Sensors for Body Volume and Shape Applications. <i>Sensors</i> , 2020, 20, 90.	2.1	4
10	Forcecardiography: A Novel Technique to Measure Heart Mechanical Vibrations onto the Chest Wall. <i>Sensors</i> , 2020, 20, 3885.	2.1	32
11	Measurement of muscle contraction timing for prosthesis control: a comparison between electromyography and force-myography. , 2020, , .		12
12	Laparoscopic Robotic Surgery: Current Perspective and Future Directions. <i>Robotics</i> , 2020, 9, 42.	2.1	28
13	Continuous Vital Monitoring During Sleep and Light Activity Using Carbon-Black Elastomer Sensors. <i>Sensors</i> , 2020, 20, 1583.	2.1	15
14	WCTECGdb: A 12-Lead Electrocardiography Dataset Recorded Simultaneously with Raw Exploring Electrodes™ Potential Directly Referred to the Right Leg. <i>Sensors</i> , 2020, 20, 3275.	2.1	0
15	Experimental Study to Improve "Federica" Prosthetic Hand and Its Control System. <i>IFMBE Proceedings</i> , 2020, , 586-593.	0.2	5
16	Study on the Activation Speed and the Energy Consumption of "Federica" Prosthetic Hand. <i>IFMBE Proceedings</i> , 2020, , 594-603.	0.2	6
17	Clinician Perspectives on the Design and Application of Wearable Cardiac Technologies for Older Adults: Qualitative Study. <i>JMIR Aging</i> , 2020, 3, e17299.	1.4	5
18	A Silicon Neuron-based Bio-Front-End for Ultra Low Power Bio-Monitoring at the Edge. , 2020, , .		0

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19	Improvements of a Simple Piezoresistive Array Armband for Gesture Recognition. , 2020, , .		1
20	Polymer sensor embedded, IOT enabled t-shirt for long-term monitoring of sleep disordered breathing. , 2019, , .		5
21	Real-Time EMG Based Pattern Recognition Control for Hand Prostheses: A Review on Existing Methods, Challenges and Future Implementation. Sensors, 2019, 19, 4596.	2.1	195
22	Groundtruth: A Matlab GUI for Artifact and Feature Identification in Physiological Signals. Frontiers in Physiology, 2019, 10, 850.	1.3	2
23	Stimulation and Repair of Peripheral Nerves Using Bioadhesive Graft Antenna. Advanced Science, 2019, 6, 1801212.	5.6	20
24	Arbitrary waveform constant current stimulator for long-term wearable applications. Medical Engineering and Physics, 2019, 68, 108-115.	0.8	1
25	A Comparison of Reflective Photoplethysmography for Detection of Heart Rate, Blood Oxygen Saturation, and Respiration Rate at Various Anatomical Locations. Sensors, 2019, 19, 1874.	2.1	84
26	Fully Open-Access Passive Dry Electrodes BIOADC: Open-Electroencephalography (EEG) Re-Invented. Sensors, 2019, 19, 772.	2.1	5
27	Low Cost Analogue Front End for Electronic Stethoscopes Application with Silicone Enclosure. , 2019, , .		0
28	Live Demonstration: Morphic Sensor for Diagnosis of Peripheral Vascular Disease. , 2019, , .		1
29	Electrodeless FSR Linear Envelope Signal for Muscle Contraction Measurement. , 2019, , .		2
30	Einthoven Unipolar Leads: Towards a better understanding of Wilson Central Terminal. , 2019, , .		0
31	Towards a Low-Power, Minimally-Invasive Nerve Regeneration. , 2019, , .		0
32	Live Demonstration: Invisible Vital Monitoring. , 2019, , .		1
33	Characterization of Coated Piezo-resistive Fabric for Respiration Sensing. , 2019, , .		0
34	Comparison of Bi-Wavelength and Tri-Wavelength Photoplethysmography Sensors Placed on the Forehead. , 2019, , .		4
35	Towards Real-Time Heartbeat Classification: Evaluation of Nonlinear Morphological Features and Voting Method. Sensors, 2019, 19, 5079.	2.1	41
36	A Piezoresistive Array Armband With Reduced Number of Sensors for Hand Gesture Recognition. Frontiers in Neurorobotics, 2019, 13, 114.	1.6	48

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37	Accuracy of Heart Rate estimation from DC polarised elastomer respiratory sensors. , 2019, , .		0
38	On the Power Spectrum of Motor Unit Action Potential Trains Synchronized With Mechanical Vibration. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 646-653.	2.7	12
39	Instantaneous VO2 from a wearable device. Medical Engineering and Physics, 2018, 52, 41-48.	0.8	10
40	Evaluation of floatingline and foetal heart rate variability. Biomedical Signal Processing and Control, 2018, 39, 185-196.	3.5	33
41	Minimization of the Wilsonâ€™s Central Terminal voltage potential via a genetic algorithm. BMC Research Notes, 2018, 11, 915.	0.6	5
42	Towards Ultra Low-Cost Myoactivated Prostheses. BioMed Research International, 2018, 2018, 1-14.	0.9	19
43	A Contactless Sensor for Pacemaker Pulse Detection: Design Hints and Performance Assessment. Sensors, 2018, 18, 2715.	2.1	13
44	On the Einthoven Triangle: A Critical Analysis of the Single Rotating Dipole Hypothesis. Sensors, 2018, 18, 2353.	2.1	18
45	Peripheral vascular disease assessment in the lower limb: a review of current and emerging non-invasive diagnostic methods. BioMedical Engineering OnLine, 2018, 17, 61.	1.3	56
46	A Piezoresistive Sensor to Measure Muscle Contraction and Mechanomyography. Sensors, 2018, 18, 2553.	2.1	83
47	Cost effective electro â€” Resistive band based myo activated prosthetic upper limb for amputees in the developing world. , 2017, , .		6
48	Quantification of a Low-Cost Stretchable Conductive Sensor Using an Expansion/Contraction Simulator Machine: A Step towards Validation of a Noninvasive Cardiac and Respiration Monitoring Prototype. Machines, 2017, 5, 22.	1.2	6
49	Computing a new central terminal for ECG recording using combined genetic algorithm and linear regression from real patient data. , 2017, , .		1
50	Low-power transcutaneous current stimulator for wearable applications. BioMedical Engineering OnLine, 2017, 16, 118.	1.3	6
51	Giga-Ohm High-Impedance FET Input Amplifiers for Dry Electrode Biosensor Circuits and Systems. , 2017, , 165-194.		1
52	A simple, wide bandwidth, biopotential amplifier to record pacemaker pulse waveform. Medical Devices: Evidence and Research, 2016, Volume 9, 325-329.	0.4	2
53	On the â€œZero of Potential of the Electric Field Produced by the Heart Beatâ€: A Machine Capable of Estimating this Underlying Persistent Error in Electrocardiography. Machines, 2016, 4, 18.	1.2	5
54	Instrumented flexible active electrode matrix suitable for human-computer interface applications. Biomedical Physics and Engineering Express, 2016, 2, 035020.	0.6	1

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55	A 0.04 mm Buck-Boost DC-DC Converter for Biomedical Implants Using Adaptive Gain and Discrete Frequency Scaling Control. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 668-678.	2.7	16
56	A novel method for non-invasive respiration monitoring. , 2015, 2015, 4524-7.		1
57	Concept Design for a 1-Lead Wearable/Implantable ECG Front-End: Power Management. Sensors, 2015, 15, 29297-29315.	2.1	4
58	True Unipolar ECG Machine for Wilson Central Terminal Measurements. BioMed Research International, 2015, 2015, 1-7.	0.9	25
59	A Wearable Contactless Sensor Suitable for Continuous Simultaneous Monitoring of Respiration and Cardiac Activity. Journal of Sensors, 2015, 2015, 1-6.	0.6	19
60	A 9-independent-leads ECG system from 10 electrodes: A practice preserving WCT-less true unipolar ECG system. , 2015, , .		1
61	Open platform, eight-channel, portable bio-potential and activity data logger for wearable medical device development. Electronics Letters, 2015, 51, 1641-1643.	0.5	18
62	HeMo: Towards an inexpensive wearable peripheral blood flow monitoring device. , 2015, , .		3
63	Electro-resistive bands for non-invasive cardiac and respiration monitoring, a feasibility study. Physiological Measurement, 2015, 36, N35-N49.	1.2	20
64	Problems in Assessment of Novel Biopotential Front-End with Dry Electrode: A Brief Review. Machines, 2014, 2, 87-98.	1.2	77
65	Hemodynamic monitor for rapid, cost-effective assessment of peripheral vascular function. , 2014, 2014, 4795-8.		4
66	Low-cost near-infrared measurement of subcutaneous fat for newborn malnutrition. , 2014, , .		3
67	Open platform, 32-channel, portable, data-logger with 32-PGA control lines for wearable medical device development. Electronics Letters, 2014, 50, 1127-1129.	0.5	12
68	Investigating the role of capacitive coupling between the operating table and the return electrode of an electrosurgery unit in the modification of the current density distribution within the patients's body. BioMedical Engineering OnLine, 2013, 12, 80.	1.3	3
69	Towards true unipolar bio-potential recording: a preliminary result for ECG. Physiological Measurement, 2013, 34, N1-N7.	1.2	21
70	Techniques for measuring energy expenditure with portable devices. , 2013, , .		2
71	Unipolar ECG circuits: Towards more precise cardiac event identification. , 2013, , .		4
72	Towards true unipolar ECG recording without the Wilson central terminal (preliminary results). Physiological Measurement, 2013, 34, 991-1012.	1.2	18

#	ARTICLE	IF	CITATIONS
73	Design and assessment of a low-cost, electromyographically controlled, prosthetic hand. Medical Devices: Evidence and Research, 2013, 6, 97.	0.4	15
74	Active electrode design suitable for simultaneous EIT and EEG. Electronics Letters, 2012, 48, 1583-1584.	0.5	9
75	Investigating the role of combined acoustic-visual feedback in one-dimensional synchronous brain computer interfaces, a preliminary study. Medical Devices: Evidence and Research, 2012, 5, 81.	0.4	12
76	Pregnancy detection and monitoring in cattle via combined foetus electrocardiogram and phonocardiogram signal processing. BMC Veterinary Research, 2012, 8, 164.	0.7	10
77	A wearable device for recording of biopotentials and body movements. , 2011, , .		34
78	Non-invasive Electronic Biosensor Circuits and Systems. , 2010, , .		4
79	An ultra-high input impedance ECG amplifier for long-term monitoring of athletes. Medical Devices: Evidence and Research, 2010, 3, 1.	0.4	50
80	A new EEG recording system for passive dry electrodes. Clinical Neurophysiology, 2010, 121, 686-693.	0.7	175
81	Dry electrode bio-potential recordings. , 2010, 2010, 6493-6.		24
82	Wearable dry sensors with bluetooth connection for use in remote patient monitoring systems. Studies in Health Technology and Informatics, 2010, 161, 57-65.	0.2	16
83	A mobile EEG system with dry electrodes. , 2008, , .		59
84	Mobile biomedical sensing with dry electrodes. , 2008, , .		15
85	Brain-computer interface: Next generation thought controlled distributed video game development platform. , 2008, , .		28