

# Giovanni Saggio

## List of Publications by Year in descending order

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Version: 2024-02-01

135  
papers

1,950  
citations

279487

23  
h-index

329751

37  
g-index

141  
all docs

141  
docs citations

141  
times ranked

1738  
citing authors

#	ARTICLE	IF	CITATIONS
1	Sensor and Actuator Electronic System for Active Hand Pose Sensing. Lecture Notes in Electrical Engineering, 2023, , 289-294.	0.3	2
2	Worldwide Healthy Adult Voice Baseline Parameters: A Comprehensive Review. Journal of Voice, 2022, 36, 637-649.	0.6	39
3	Near-Field Circular Array for the Transcutaneous Telemetry of UHF RFID-Based Implantable Medical Devices. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2022, 6, 219-227.	2.3	6
4	A Geometric Model-Based Approach to Hand Gesture Recognition. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 6151-6161.	5.9	13
5	The Impact of Wearable Electronics in Assessing the Effectiveness of Levodopa Treatment in Parkinson's Disease. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 2920-2928.	3.9	9
6	Machine Learning-based Study of Dysphonic Voices for the Identification and Differentiation of Vocal Cord Paralysis and Vocal Nodules. , 2022, , .		1
7	Voice in Parkinson's Disease: A Machine Learning Study. Frontiers in Neurology, 2022, 13, 831428.	1.1	32
8	Performance Index for in Home Assessment of Motion Abilities in Ataxia Telangiectasia: A Pilot Study. Applied Sciences (Switzerland), 2022, 12, 4093.	1.3	2
9	Technology-Based Complex Motor Tasks Assessment: A 6-DOF Inertial-Based System Versus a Gold-Standard Optoelectronic-Based One. IEEE Sensors Journal, 2021, 21, 1616-1624.	2.4	30
10	Toward the Minimum Number of Wearables to Recognize Signer-Independent Italian Sign Language With Machine-Learning Algorithms. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	2.4	16
11	Machine Learning based Voice Analysis in Spasmodic Dysphonia: An Investigation of Most Relevant Features from Specific Vocal Tasks. , 2021, , .		4
12	A Novel Actuating "Sensing Bone Conduction-Based System for Active Hand Pose Sensing and Material Densities Evaluation Through Hand Touch. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-7.	2.4	5
13	Voice Analysis with Machine Learning: One Step Closer to an Objective Diagnosis of Essential Tremor. Movement Disorders, 2021, 36, 1401-1410.	2.2	33
14	Objective Assessment of Walking Impairments in Myotonic Dystrophy by Means of a Wearable Technology and a Novel Severity Index. Electronics (Switzerland), 2021, 10, 708.	1.8	1
15	Fostering Voice Objective Analysis in Patients with Movement Disorders. Movement Disorders, 2021, 36, 1041-1041.	2.2	13
16	Measurements comparison of finger joint angles in hand postures between an sEMG armband and a sensory glove. Biocybernetics and Biomedical Engineering, 2021, 41, 605-616.	3.3	8
17	Reply to: "Reproducibility of Voice Analysis with Machine Learning". Movement Disorders, 2021, 36, 1283-1284.	2.2	4
18	A Machine Learning-Based Voice Analysis for the Detection of Dysphagia Biomarkers. , 2021, , .		4

#	ARTICLE	IF	CITATIONS
19	Generalized Finite-Length Fibonacci Sequences in Healthy and Pathological Human Walking: Comprehensively Assessing Recursivity, Asymmetry, Consistency, Self-Similarity, and Variability of Gaits. <i>Frontiers in Human Neuroscience</i> , 2021, 15, 649533.	1.0	8
20	Technology-based therapy-response and prognostic biomarkers in a prospective study of a de novo Parkinson's disease cohort. <i>Npj Parkinson's Disease</i> , 2021, 7, 82.	2.5	10
21	Vocal Test Analysis for the Assessment of Adductor-type Spasmodic Dysphonia. , 2021, , .		1
22	Vocal test Analysis for Assessing Parkinson's Disease at Early Stage. , 2021, , .		3
23	Machine Learning-based Voice Assessment for the Detection of Positive and Recovered COVID-19 Patients. <i>Journal of Voice</i> , 2021, , .	0.6	20
24	On the use of field programmable gate arrays in light detection and ranging systems. <i>Review of Scientific Instruments</i> , 2021, 92, 121501.	0.6	3
25	Assessment of Motor Impairments in Early Untreated Parkinson's Disease Patients: The Wearable Electronics Impact. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2020, 24, 120-130.	3.9	45
26	Technology-Based Objective Measures Detect Subclinical Axial Signs in Untreated, de novo Parkinson's Disease. <i>Journal of Parkinson's Disease</i> , 2020, 10, 113-122.	1.5	25
27	Sign Language Recognition Using Wearable Electronics: Implementing k-Nearest Neighbors with Dynamic Time Warping and Convolutional Neural Network Algorithms. <i>Sensors</i> , 2020, 20, 3879.	2.1	33
28	RFID interface for compact pliable EMG wireless epidermal sensor. , 2020, , .		1
29	Bending Sensors Based on Thin Films of Semitransparent Bithiophene- <i>Fulleropyrrolidine</i> Bisadducts. <i>ChemPlusChem</i> , 2020, 85, 2455-2464.	1.3	3
30	Machine-Learning Analysis of Voice Samples Recorded through Smartphones: The Combined Effect of Ageing and Gender. <i>Sensors</i> , 2020, 20, 5022.	2.1	34
31	Voice analysis in adductor spasmodic dysphonia: Objective diagnosis and response to botulinum toxin. <i>Parkinsonism and Related Disorders</i> , 2020, 73, 23-30.	1.1	35
32	Are Sensors and Data Processing Paving the Way to Completely Non-invasive and Not-painful Medical Tests for Widespread Screening and Diagnosis Purposes?. , 2020, , .		7
33	Evaluation of Dedicated Bluetooth Low Energy Wireless Data Transfer for an Implantable EMG Sensor. , 2020, , .		4
34	Performance Comparison of Patch and Loop Antennas for the Wireless Power Transfer and Transcutaneous Telemetry in the 860-960 MHz Frequency Band. , 2019, , .		2
35	Constrained Safety-Integrity Performance of Through-the-Arms UHF-RFID Transcutaneous Wireless Communication for the Control of Prostheses. <i>IEEE Journal of Radio Frequency Identification</i> , 2019, 3, 236-244.	1.5	15
36	A low-cost energy-harvesting sensory headwear useful for tetraplegic people to drive home automation. <i>AEU - International Journal of Electronics and Communications</i> , 2019, 107, 9-14.	1.7	16

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37	Energy harvesting optimization for built-in power replacement of electronic multisensory architecture. <i>AEU - International Journal of Electronics and Communications</i> , 2019, 107, 170-176.	1.7	20
38	UHF RFID-Based EMG for Prosthetic Control: preliminary results. , 2019, , .		10
39	Wearable Electronics Assess the Effectiveness of Transcranial Direct Current Stimulation on Balance and Gait in Parkinsonâ€™s Disease Patients. <i>Sensors</i> , 2019, 19, 5465.	2.1	8
40	Wearable-based electronics to objectively support diagnosis of motor impairments in school-aged children. <i>Journal of Biomechanics</i> , 2019, 83, 243-252.	0.9	31
41	A 10-17 DOF Sensory Gloves with Harvesting Capability for Smart Healthcare. <i>Journal of Communications Software and Systems</i> , 2019, 15, .	0.6	6
42	Low Cost and Fast Development of 3D Printed Gloves for 10 Degrees of Freedom Gesture Recognition. , 2019, , .		0
43	Flex sensor characterization against shape and curvature changes. <i>Sensors and Actuators A: Physical</i> , 2018, 273, 221-231.	2.0	41
44	High-Density ZnO Nanowires as a Reversible Myogenicâ€™Differentiation Switch. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 14097-14107.	4.0	23
45	Towards the enhancement of body standing balance recovery by means of a wireless audio-biofeedback system. <i>Medical Engineering and Physics</i> , 2018, 54, 74-81.	0.8	16
46	Sensory-Glove-Based Open Surgery Skill Evaluation. <i>IEEE Transactions on Human-Machine Systems</i> , 2018, 48, 213-218.	2.5	30
47	Sensory Systems for Human Body Gesture Recognition and Motion Capture. , 2018, , .		9
48	Feasibility of an RFID-based Transcutaneous Wireless Communication for the Control of Upper-limb Myoelectric Prosthesis. , 2018, , .		12
49	Evaluation of an integrated sensory glove at decreasing joint flexion degree. , 2018, , .		7
50	Ambient assisted living for tetraplegic people by means of an electronic system based on a novel sensory headwear : Increased possibilities for reduced abilities. , 2018, , .		6
51	A novel analytical approach to assess dyskinesia in patients with Parkinson disease. , 2018, , .		6
52	A human body powered sensory glove system based on multisource energy harvester. , 2018, , .		16
53	Assessment of Gait Harmony in Older and Young People. , 2018, , .		4
54	A Sensor Which Can Be Varied in Humidity Sensitivity. , 2018, , .		1

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55	Support vector machines to detect physiological patterns for EEG and EMG-based human-computer interaction: a review. <i>Journal of Neural Engineering</i> , 2017, 14, 011001.	1.8	92
56	Body-worn triaxial accelerometer coherence and reliability related to static posturography in unilateral vestibular failure. <i>Acta Otorhinolaryngologica Italica</i> , 2017, 37, 231-236.	0.7	27
57	Recognition of Arm-and-Hand Visual Signals by Means of SVM to Increase Aircraft Security. <i>Studies in Computational Intelligence</i> , 2017, , 444-461.	0.7	7
58	In-vitro Force Assessments of an Autoclavable Instrumented Sternal Retractor. , 2017, , .		2
59	Choosing the individual rehabilitation program for patients with intermittent claudication. <i>Giornale Di Chirurgia</i> , 2017, 38, 90.	0.5	0
60	A Fuzzy Integral Ensemble Method in Visual P300 Brain-Computer Interface. <i>Computational Intelligence and Neuroscience</i> , 2016, 2016, 1-9.	1.1	23
61	Tuberculosis Screening by Means of Speech Analysis. <i>Journal of Communication Navigation Sensing and Services (CONASENSE)</i> , 2016, 2016, 45-56.	0.2	2
62	Evaluation of a Stretch Sensor for its inedited application in tracking hand finger movements. , 2016, , .		9
63	A Simple fMRI Compatible Robotic Stimulator to Study the Neural Mechanisms of Touch and Pain. <i>Annals of Biomedical Engineering</i> , 2016, 44, 2431-2441.	1.3	5
64	Resistive flex sensors: a survey. <i>Smart Materials and Structures</i> , 2016, 25, 013001.	1.8	112
65	Sensory Glove and Surface EMG with Suitable Conditioning Electronics for Extended Monitoring and Functional Hand Assessment. , 2016, , .		4
66	Towards an Objective Tool for Evaluating the Surgical Skill. <i>Studies in Computational Intelligence</i> , 2016, , 325-335.	0.7	1
67	Assessment of Hand Rehabilitation after Hand Surgery by Means of a Sensory Glove. , 2016, , .		4
68	Cells Microenvironment Engineering - Multiphoton Absorption for Muscle Regeneration Optimization. , 2016, , .		0
69	Computational Model of a Buncher Cavity for Millimetric Klystron. , 2015, , .		3
70	Injection/bunching section design of a Sub-millimetric klystron. , 2015, , .		0
71	Towards the improvement of postural stability through audio bio-feedback. , 2015, , .		1
72	Objective Surgical Skill Assessment: An Initial Experience by Means of a Sensory Glove Paving the Way to Open Surgery Simulation?. <i>Journal of Surgical Education</i> , 2015, 72, 910-917.	1.2	26

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73	Inedited SVM Application to Automatically Tracking and Recognizing Arm-and-Hand Visual Signals to Aircraft. , 2015, , .		2
74	A Novel Automatic Method to Determine Blood Pressure Based on Thresholds of Audibility. British Journal of Applied Science & Technology, 2015, 7, 364-371.	0.2	3
75	Sensorized Garments Developed for Remote Postural and Motor Rehabilitation. , 2015, , 511-536.		0
76	In Vitro Analysis of Pyrogenicity and Cytotoxicity Profiles of Flex Sensors to be Used to Sense Human Joint Postures. Sensors, 2014, 14, 11672-11681.	2.1	12
77	Multiphysics design of a spatial combiner predisposed for thermo-mechanically affected operation. Journal of Electromagnetic Waves and Applications, 2014, 28, 2153-2168.	1.0	7
78	Feasibility of teleoperations with multi-fingered robotic hand for safe extravehicular manipulations. Aerospace Science and Technology, 2014, 39, 666-674.	2.5	23
79	The multisensory integrated modules for training. , 2014, , .		2
80	Evaluating the influence of subject-related variables on EMG-based hand gesture classification. , 2014, , .		7
81	Advanced algorithms for surgical gesture classification. , 2014, , .		3
82	Optimization of EMG-based hand gesture recognition: Supervised vs. unsupervised data preprocessing on healthy subjects and transradial amputees. Biomedical Signal Processing and Control, 2014, 14, 117-125.	3.5	72
83	Modeling Wearable Bend Sensor Behavior for Human Motion Capture. IEEE Sensors Journal, 2014, 14, 2307-2316.	2.4	27
84	Development and evaluation of a novel low-cost sensor-based knee flexion angle measurement system. Knee, 2014, 21, 896-901.	0.8	28
85	A novel array of flex sensors for a goniometric glove. Sensors and Actuators A: Physical, 2014, 205, 119-125.	2.0	75
86	Conversion of Sign Language to Spoken Sentences by Means of a Sensory Glove. Journal of Software, 2014, 9, .	0.6	6
87	Combination of Classifiers using the Fuzzy Integral for Uncertainty Identification and Subject Specific Optimization - Application to Brain-Computer Interface. , 2014, , .		2
88	Surgical Skill Evaluation by Means of a Sensory Glove and a Neural Network. , 2014, , .		1
89	Sensorized Garments Developed for Remote Postural and Motor Rehabilitation. , 2013, , 265-289.		0
90	Curvature Characterization of Flex Sensors for Human Posture Recognition. Universal Journal of Biomedical Engineering, 2013, 1, 10-15.	0.4	8

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91	Single-sided objective speech intelligibility assessment based on Sparse signal representation. , 2012, , .		3
92	Mechanical model of flex sensors used to sense finger movements. Sensors and Actuators A: Physical, 2012, 185, 53-58.	2.0	54
93	Shaping Resistive Bend Sensors to Enhance Readout Linearity. ISRN Electronics, 2012, 2012, 1-7.	1.1	13
94	Wireless Sensory Glove System developed for advanced Human Computer Interface. International Journal of Information Science, 2012, 2, 54-59.	0.2	3
95	Bend sensor arrays for hand movement tracking in biomedical systems. , 2011, , .		10
96	A data glove based sensor interface to expressively control musical processes. , 2011, , .		15
97	On the use of NMF for onset detection in poliphonic piano music. , 2011, , .		0
98	Methods and hints to linearise the resistance values vs. bending angle relationship of bend sensors. , 2011, , .		1
99	New scenarios in human trunk posture measurements for clinical applications. , 2011, , .		20
100	Use of the Choquet integral for combination of classifiers in P300 based brain-computer interface. , 2011, , .		0
101	A sensor interface based on sparse NMF for piano musical transcription. , 2011, , .		1
102	Electrical resistance profiling of bend sensors adopted to measure spatial arrangement of the human body. , 2011, , .		10
103	A real time FFT-based impedance meter with bias compensation. Measurement: Journal of the International Measurement Confederation, 2011, 44, 702-707.	2.5	4
104	Gesture recognition and classification for surgical skill assessment. , 2011, , .		8
105	Gesture recognition through HITEG data glove to provide a new way of communication. , 2011, , .		4
106	Power efficient wireless connectivity of a wearable data glove. , 2010, , .		1
107	Wireless data glove system developed for HMI. , 2010, , .		12
108	On the reduction of complexity problem on driving of human hand prosthesis. , 2010, , .		0

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109	Advanced characterization of piezoresistive sensors for human body movement tracking. , 2010, , .		8
110	Optimal mental task discrimination for brain-computer interface. , 2010, , .		0
111	A Glove Based Adaptive Sensor Interface for Live Musical Performances. , 2010, , .		4
112	Characterization of piezoresistive sensors for goniometric glove in hand prostheses. , 2009, , .		8
113	Long term measurement of human joint movements for health care and rehabilitation purposes. , 2009, , .		19
114	Piezoresistive behaviour of flexible PEDOT:PSS based sensors. Sensors and Actuators B: Chemical, 2009, 139, 304-309.	4.0	142
115	Introducing NPXLab 2010: A tool for the analysis and optimization of P300 based brain-computer interfaces. , 2009, , .		6
116	Virtual reality implementation as a useful software tool for e-health applications. , 2009, , .		4
117	Mechanical modeling of bend sensors exploited to measure human joint movements. , 2009, , .		12
118	A novel application method for wearable bend sensors. , 2009, , .		22
119	Mental task recognition based on SVM classification. , 2009, , .		2
120	Comparison of two different classifiers for mental tasks-based Brain-Computer Interface: MLP Neural Networks vs. Fuzzy Logic. , 2009, , .		4
121	UML model applied as a useful tool for Wireless Body Area Networks. , 2009, , .		5
122	Efficiency of a BCI system in a visual P300 protocol with different stimulation intervals. , 2009, , .		0
123	A UML model for the description of different brain-computer interface systems. , 2008, 2008, 1363-6.		5
124	Brain Computer Interface research at the Neuroscience Department of the "Tor Vergata" University of Rome, Italy. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4715-8.	0.5	2
125	A novel impedance pattern for fast noise measurements. IEEE Transactions on Instrumentation and Measurement, 2002, 51, 560-564.	2.4	14
126	Broadband peaking techniques for HEMT-based monolithic transimpedance amplifiers. Microwave and Optical Technology Letters, 2000, 24, 147-151.	0.9	1



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127	Experimental performances of 5 GHz harmonic-manipulated high efficiency microwave power amplifiers. Electronics Letters, 2000, 36, 800.	0.5	13
128	The exploitation of metalloporphyrins as chemically interactive material in chemical sensors. Materials Science and Engineering C, 1998, 5, 209-215.	3.8	62
129	Advances in SAW-based gas sensors. Smart Materials and Structures, 1997, 6, 689-699.	1.8	66
130	An integrated optical method for measuring the thickness and refractive index of birefringent thin films. Thin Solid Films, 1997, 292, 255-259.	0.8	30
131	Reactive ion etching characterization of a-SiC: H in CF <sub>4</sub> /O <sub>2</sub> plasma. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1995, 29, 176-180.	1.7	16
132	Two dimensional image sensors based on amorphous silicon alloy p-i-n diodes. Journal of Non-Crystalline Solids, 1993, 164-166, 789-792.	1.5	7
133	Lowering the uncertainty in fast noise measurement procedures. , 0, , .		1
134	Virtuality Supports Reality for e-Health Applications. , 0, , .		4
135	Global Design of a Waveguide X-Band Power Amplifier. International Journal of Simulation: Systems, Science and Technology, 0, , .	0.0	3