Leandro Pecchia

List of Publications by Year
in descending order

132 papers	**3,458** citations	201385 **27** h-index	161609 **54** g-index
153 all docs	**153** docs citations	**153** times ranked	**3705** citing authors

#	ARTICLE	IF	CITATIONS
1	Acute mental stress assessment via short term HRV analysis in healthy adults: A systematic review with meta-analysis. Biomedical Signal Processing and Control, 2015, 18, 370-377.	3.5	340
2	Nonlinear Heart Rate Variability features for real-life stress detection. Case study: students under stress due to university examination. BioMedical Engineering OnLine, 2011, 10, 96.	1.3	239
3	Classification Tree for Risk Assessment in Patients Suffering From Congestive Heart Failure via Long-Term Heart Rate Variability. IEEE Journal of Biomedical and Health Informatics, 2013, 17, 727-733.	3.9	142
4	Automatic Prediction of Cardiovascular and Cerebrovascular Events Using Heart Rate Variability Analysis. PLoS ONE, 2015, 10, e0118504.	1.1	141
5	Ultra-short term HRV features as surrogates of short term HRV: a case study on mental stress detection in real life. BMC Medical Informatics and Decision Making, 2019, 19, 12.	1.5	133
6	Which is the best laparoscopic approach for inguinal hernia repair: TEP or TAPP? A systematic review of the literature with a network meta-analysis. Surgical Endoscopy and Other Interventional Techniques, 2012, 26, 3355-3366.	1.3	124
7	Precision Medicine and Artificial Intelligence: A Pilot Study on Deep Learning for Hypoglycemic Events Detection based on ECG. Scientific Reports, 2020, 10, 170.	1.6	114
8	On the use of approximate entropy and sample entropy with centre of pressure time-series. Journal of NeuroEngineering and Rehabilitation, 2018, 15, 116.	2.4	103
9	Discrimination Power of Short-Term Heart Rate Variability Measures for CHF Assessment. IEEE Transactions on Information Technology in Biomedicine, 2011, 15, 40-46.	3.6	101
10	User needs elicitation via analytic hierarchy process (AHP). A case study on a Computed Tomography (CT) scanner. BMC Medical Informatics and Decision Making, 2013, 13, 2.	1.5	99
11	Remote Health Monitoring of Heart Failure With Data Mining via CART Method on HRV Features. IEEE Transactions on Biomedical Engineering, 2011, 58, 800-804.	2.5	93
12	Heart Rate Variability (HRV) Analysis: A Methodology for Organizational Neuroscience. Organizational Research Methods, 2019, 22, 354-393.	5.6	90
13	Analytic Hierarchy Process (AHP) for Examining Healthcare Professionals' Assessments of Risk Factors. Methods of Information in Medicine, 2011, 50, 435-444.	0.7	85
14	Discrimination power of long-term heart rate variability measures for chronic heart failure detection. Medical and Biological Engineering and Computing, 2011, 49, 67-74.	1.6	84
15	Evidence-based clinical engineering: Machine learning algorithms for prediction of defibrillator performance. Biomedical Signal Processing and Control, 2019, 54, 101629.	3.5	84
16	Wearable Inertial Sensors for Fall Risk Assessment and Prediction in Older Adults: A Systematic Review and Meta-Analysis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 573-582.	2.7	79
17	Are ultra-short heart rate variability features good surrogates of short-term ones? State-of-the-art review and recommendations. Healthcare Technology Letters, 2018, 5, 94-100.	1.9	79
18	A convolutional neural network approach to detect congestive heart failure. Biomedical Signal Processing and Control, 2020, 55, 101597.	3.5	75

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19	A machine learning model for supporting symptom-based referral and diagnosis of bronchitis and pneumonia in limited resource settings. Biocybernetics and Biomedical Engineering, 2021, 41, 1288-1302.	3.3	57
20	The Inadequacy of Regulatory Frameworks in Time of Crisis and in Low-Resource Settings: Personal Protective Equipment and COVID-19. Health and Technology, 2020, 10, 1375-1383.	2.1	52
21	Cloud-Based Smart Health Monitoring System for Automatic Cardiovascular and Fall Risk Assessment in Hypertensive Patients. Journal of Medical Systems, 2015, 39, 109.	2.2	51
22	Detection of mental stress due to oral academic examination via ultra-short-term HRV analysis. , 2016, 2016, 3805-3808.		51
23	A review of machine learning in hypertension detection and blood pressure estimation based on clinical and physiological data. Biomedical Signal Processing and Control, 2021, 68, 102813.	3.5	47
24	Beneficial effects of fibrin glue (Quixil) versus Lichtenstein conventional technique in inguinal hernia repair: a randomized clinical trial. Hernia: the Journal of Hernias and Abdominal Wall Surgery, 2014, 18, 185-192.	0.9	46
25	Predictors of adverse events after endoscopic ultrasound-guided through-the-needle biopsy of pancreatic cysts: a recursive partitioning analysis. Endoscopy, 2022, 54, 1158-1168.	1.0	39
26	Totally laparoscopic gastrectomy for gastric cancer: Meta-analysis of short-term outcomes. Minimally Invasive Therapy and Allied Technologies, 2012, 21, 150-160.	0.6	38
27	Heart rate variability and target organ damage in hypertensive patients. BMC Cardiovascular Disorders, 2012, 12, 105.	0.7	38
28	Is robotic right colectomy economically sustainable? a multicentre retrospective comparative study and cost analysis. Surgical Endoscopy and Other Interventional Techniques, 2020, 34, 4041-4047.	1.3	35
29	Wearable technology and ECG processing for fall risk assessment, prevention and detection. , 2015, 2015, 7740-3.		30
30	HEALTH TECHNOLOGY ASSESSMENT METHODS GUIDELINES FOR MEDICAL DEVICES: HOW CAN WE ADDRESS THE GAPS? THE INTERNATIONAL FEDERATION OF MEDICAL AND BIOLOGICAL ENGINEERING PERSPECTIVE. International Journal of Technology Assessment in Health Care, 2018, 34, 276-289.	0.2	28
31	Pupillometric analysis for assessment of gene therapy in Leber Congenital Amaurosis patients. BioMedical Engineering OnLine, 2012, 11, 40.	1.3	27
32	Fall Prediction in Hypertensive Patients via Short-Term HRV Analysis. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 399-406.	3.9	26
33	Radiomic and Genomic Machine Learning Method Performance for Prostate Cancer Diagnosis: Systematic Literature Review. Journal of Medical Internet Research, 2021, 23, e22394.	2.1	26
34	Day-to-day variations in sleep quality affect standing balance in healthy adults. Scientific Reports, 2018, 8, 17504.	1.6	25
35	Time adaptive ECG driven cardiovascular disease detector. Biomedical Signal Processing and Control, 2021, 70, 102968.	3.5	24
36	Health Technology Assessment and Biomedical Engineering: Global trends, gaps and opportunities. Medical Engineering and Physics, 2019, 72, 19-26.	0.8	23

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37	A Framework for Assessing Healthcare Facilities in Low-Resource Settings: Field Studies in Benin and Uganda. Journal of Medical and Biological Engineering, 2020, 40, 526-534.	1.0	23
38	A framework for designing medical devices resilient to low-resource settings. Globalization and Health, 2021, 17, 64.	2.4	22
39	Beyond the User Preferences: Aligning the Prototype Design to the Users' Expectations. Human Factors and Ergonomics in Manufacturing, 2016, 26, 16-39.	1.4	19
40	Automatic Detection of Genetic Diseases in Pediatric Age Using Pupillometry. IEEE Access, 2020, 8, 34949-34961.	2.6	19
41	The use of artificial intelligence systems in diagnosis of pneumonia via signs and symptoms: A systematic review. Biomedical Signal Processing and Control, 2022, 72, 103325.	3.5	19
42	Nocturnal low glucose detection in healthy elderly from one-lead ECG using convolutional denoising autoencoders. Biomedical Signal Processing and Control, 2020, 62, 102054.	3.5	18
43	From Syndemic Lesson after COVID-19 Pandemic to a "Systemic Clinical Risk Management" Proposal in the Perspective of the Ethics of Job Well Done. International Journal of Environmental Research and Public Health, 2022, 19, 15.	1.2	18
44	Personalized Training via Serious Game to Improve Daily Living Skills in Pediatric Patients With Autism Spectrum Disorder. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 3312-3322.	3.9	16
45	Medical devices in Sub-Saharan Africa: optimal assistance via a computerized maintenance management system (CMMS) in Benin. Health and Technology, 2019, 9, 219-232.	2.1	15
46	Is Shouldice the best NON-MESH inguinal hernia repair technique? A systematic review and network metanalysis of randomized controlled trials comparing Shouldice and Desarda. International Journal of Surgery, 2019, 62, 12-21.	1.1	15
47	Short term Heart Rate Variability to predict blood pressure drops due to standing: a pilot study. BMC Medical Informatics and Decision Making, 2015, 15, S2.	1.5	14
48	To What Extent Can We Shorten HRV Analysis in Wearable Sensing? A Case Study on Mental Stress Detection.. IFMBE Proceedings, 2018, , 643-646.	0.2	13
49	A feasibility study for the provision of electronic healthcare tools and services in areas of Greece, Cyprus and Italy. BioMedical Engineering OnLine, 2011, 10, 49.	1.3	12
50	Automatic classifier based on heart rate variability to identify fallers among hypertensive subjects. Healthcare Technology Letters, 2015, 2, 89-94.	1.9	12
51	Classification tree for real-life stress detection using linear Heart Rate Variability analysis. Case study: students under stress due to university examination. IFMBE Proceedings, 2013, , 477-480.	0.2	12
52	WEB-BASED SYSTEM FOR ASSESSING RISK FACTORS FOR FALLS IN COMMUNITY-DWELLING ELDERLY PEOPLE USING THE ANALYTIC HIERARCHY PROCESS. International Journal of the Analytic Hierarchy Process, 2010, 2, .	0.2	12
53	Blood Pressure Drop Prediction by using HRV Measurements in Orthostatic Hypotension. Journal of Medical Systems, 2015, 39, 143.	2.2	11
54	Endovascular Treatment versus Medical Therapy for Hypertensive Patients with Renal Artery Stenosis: An Updated Systematic Review. Annals of Vascular Surgery, 2019, 61, 445-454.	0.4	11

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55	Case Studies on the Use of Sentiment Analysis to Assess the Effectiveness and Safety of Health Technologies: A Scoping Review. IEEE Access, 2021, 9, 66043-66051.	2.6	11
56	Analytic Hierarchy Process to Define the Most Important Factors and Related Technologies for Empowering Elderly People in Taking an Active Role in their Health. Journal of Medical Systems, 2015, 39, 98.	2.2	10
57	From COVID-19 Pandemic to Patient Safety: A New "Spring"for Telemedicine or a Boomerang Effect?. Frontiers in Medicine, 0, 9, .	1.2	10
58	Promoting harmonization of BME education in Europe: The CRH-BME Tempus project. , 2011, 2011, 6522-5.		9
59	Donation of Medical Devices in Low-Income Countries: Preliminary Results from Field Studies. IFMBE Proceedings, 2020, , 423-427.	0.2	9
60	Clinical needs and technical requirements for ventilators for COVID-19 treatment critical patients: an evidence-based comparison for adult and pediatric age. Health and Technology, 2020, 10, 1403-1411.	2.1	9
61	Pupillometry via smartphone for low-resource settings. Biocybernetics and Biomedical Engineering, 2021, 41, 891-902.	3.3	9
62	Cloud-Based Remote Processing and Data-Mining Platform for Automatic Risk Assessment in Hypertensive Patients. Lecture Notes in Computer Science, 2014, , 155-162.	1.0	8
63	Automatic Prediction of Falls via Heart Rate Variability and Data Mining in Hypertensive Patients: The SHARE Project Experience. IFMBE Proceedings, 2015, , 42-45.	0.2	8
64	Pre-classification process symptom questionnaire based on fuzzy logic for pulmonary function test cost reduction. IFMBE Proceedings, 2017, , 608-616.	0.2	8
65	The role of ethics in science: a systematic literature review from the first wave of COVID-19. Health and Technology, 2021, 11, 1063-1071.	2.1	8
66	Enhanced Medical and Community Face Masks with Antimicrobial Properties: A Systematic Review. Journal of Clinical Medicine, 2021, 10, 4066.	1.0	8
67	Heart Rate Variability Analysis and Performance during a Repeated Mental Workload Task. IFMBE Proceedings, 2018, , 69-72.	0.2	8
68	Biomedical engineering and ethics: reflections on medical devices and PPE during the first wave of COVID-19. BMC Medical Ethics, 2021, 22, 130.	1.0	7
69	Identifying fallers among ophthalmic patients using classification tree methodology. PLoS ONE, 2017, 12, e0174083.	1.1	7
70	A pilot study for development of a novel tool for clinical decision making to identify fallers among ophthalmic patients. BMC Medical Informatics and Decision Making, 2015, 15, S6.	1.5	6
71	Early Cost-effectiveness Analysis of Electrochemotherapy as a Prospect Treatment Modality for Skin Melanoma. Clinical Therapeutics, 2020, 42, 1535-1548.e2.	1.1	6
72	Frontiers in hemodialysis part II: Toward personalized and optimized therapy. Biomedical Signal Processing and Control, 2020, 61, 102029.	3.5	6

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73	Detection of melatonin-onset in real settings via wearable sensors and artificial intelligence. A pilot study. Biomedical Signal Processing and Control, 2021, 65, 102386.	3.5	6
74	Health Technology Assessment of Home Monitoring for the Continuity of Care of patient suffering from congestive heart failure. IFMBE Proceedings, 2009, , 184-187.	0.2	6
75	Use of technology to prevent, detect, manage and control hypertension in sub-Saharan Africa: a systematic review. BMJ Open, 2022, 12, e058840.	0.8	6
76	A Software Tool to Support the Health Technology Assessment (HTA) and the User Need Elicitation of Medical Devices via the Analytic Hierarchy Process (AHP). IFMBE Proceedings, 2014, , 292-295.	0.2	5
77	Health Technology Assessment of Medical Devices in Low and Middle Income Countries: study design and preliminary results.. IFMBE Proceedings, 2018, , 225-228.	0.2	5
78	3D-printed activated charcoal inlet filters for oxygen concentrators: A circular economy approach. Development Engineering, 2022, 7, 100094.	1.4	5
79	Heart Rate Variability in healthy people compared with patients with Congestive Heart Failure. , 2009, , .		4
80	Embracing Change: Learnings From Implementing Multidimensional Digital Remote Monitoring in Oncology Patients at a District General Hospital During the COVID-19 Pandemic. JCO Clinical Cancer Informatics, 2021, 5, 216-220.	1.0	4
81	Bioelectronic Technologies and Artificial Intelligence for Medical Diagnosis and Healthcare. Electronics (Switzerland), 2021, 10, 1242.	1.8	4
82	A vest for treating jaundice in low-resource settings. , 2021, , .		4
83	Health Technology Assessment for a Service Contract: a new method for decisional tools. IFMBE Proceedings, 2009, , 105-108.	0.2	4
84	THE USE OF ANALYTIC HIERARCHY PROCESS FOR THE PRIORITIZATION OF FACTORS AFFECTING WELLBEING IN ELDERLY. , 2011, , .		4
85	Heart rate variability and renal organ damage in hypertensive patients. , 2012, 2012, 3825-8.		3
86	Interactive management control via analytic hierarchy process: an empirical study in a public university hospital. Journal for International Business and Entrepreneurship Development, 2015, 8, 144.	0.7	3
87	Blood-Gas Modelling for Artificially Ventilated Patients Using Interval Type-2 Fuzzy Logic System. IFMBE Proceedings, 2016, , 994-999.	0.2	3
88	AHP for Health Technology Assessment A CaseStudy: Prioritizing Care Approaches for Patients Suffering from Chronic Heart Failure. , 2009, , .		3
89	Toward a Symbolic AI Approach to the WHO/ACSM Physical Activity & Sedentary Behavior Guidelines. Applied Sciences (Switzerland), 2022, 12, 1776.	1.3	3
90	Biomedical engineering in low- and middle-income settings: analysis of current state, challenges and best practices. Health and Technology, 2022, , 1-11.	2.1	3

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91	EVALUATION OF SHORT‐TERM EFFECTIVENESS OF THE DISEASE MANAGEMENT PROGRAM "DI.PRO.DI." ON CONTINUITY OF CARE OF PATIENTS WITH CONGESTIVE HEART FAILURE. Journal of the American Geriatrics Society, 2010, 58, 1603-1604.	1.3	2
92	Early Health Economic Assessment in Innovation Partnerships: Lessons from the European Innovation Partnership on Active and Healthy Ageing. Value in Health, 2015, 18, A726.	0.1	2
93	Acute Mental Stress Assessment via Short Term HRV Analysis in Healthy Adults: A Systematic Review. IFMBE Proceedings, 2015, , 1-4.	0.2	2
94	New intelligent network approach for monitoring physiological parameters: the case of Benin. Health and Technology, 2020, 10, 1311-1322.	2.1	2
95	Analytic Hierarchy Process for Health Technology Assessment: A Case Study for Selecting a Maintenance Service Contract. Studies in Fuzziness and Soft Computing, 2013, , 275-288.	0.6	2
96	The evaluation of medical devices: are we getting closer to solve the puzzle? A review of recent trends. IFMBE Proceedings, 2018, , 916-919.	0.2	2
97	Study design of a medical device pre-market assessment: a case study on electrochemotherapy. Zdravniški Vestnik, 2018, 87, .	0.1	2
98	Exploring the misalignment on the value of further research between payers and manufacturers. A case study on a novel total artificial heart. Health Economics (United Kingdom), 2022, , .	0.8	2
99	Social Engagement in the Fight Against COVID-19 in the Urban and Peri-Urban Areas of Cotonou (Benin,) Tj ETQq1 1 0.784314 rgBT / 2022, 9, .	1.2	2
100	A preliminary setup model and protocol for checking electromagnetic interference between pacemakers and RFID (Radio Frequency IDentification). , 2007, , 1066-1069.		1
101	Interactive management control via analytic hierarchy process (AHP). An empirical study in a public university hospital. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 555-560.	0.4	1
102	Government policy and healthcare management: proposal of a shared decision-making model. International Journal of Management and Decision Making, 2015, 14, 183.	0.1	1
103	Preliminary Results from a Proof of Concept Study for Fall Detection via ECG Morphology. IFMBE Proceedings, 2016, , 205-208.	0.2	1
104	Early stage healthcare technology assessment. , 2020, , 799-806.		1
105	Health technology assessment teaching for BME. , 2020, , 832-835.		1
106	Human Computer Interaction Challenges in Designing Pandemic Trace Application for the Effective Knowledge Transfer Between Science and Society Inside the Quadruple Helix Collaboration. Lecture Notes in Computer Science, 2021, , 390-401.	1.0	1
107	Early health technology assessment using the MAFEIP tool. A case study on a wearable device for fall prediction in elderly patients. Health and Technology, 2021, 11, 995-1002.	2.1	1
108	Interactive Voice Response System for home telemonitoring of heart failure patients. IFMBE Proceedings, 2009, , 153-156.	0.2	1

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109	HEALTH TECHNOLOGY ASSESSMENT: NEEDS ANALYSIS VIA ANALYTIC HIERARCHY PROCESS. , 2011, , .		1
110	The Analytic Hierarchy Process (AHP) and the User Need Elicitation in the Health Technology Assessment (HTA). , 2013, , .		1
111	Day-to-day variation in sleep quality and static balance: results from an exploratory study. IFMBE Proceedings, 2018, , 611-614.	0.2	1
112	Investigating the Use of Wearables for Monitoring Circadian Rhythms: A Feasibility Study. IFMBE Proceedings, 2020, , 275-280.	0.2	1
113	Health Technology Assessment of Intensive Care Ventilators for Pediatric Patients. Children, 2021, 8, 986.	0.6	1
114	Mental illness in some Sub Saharan African communities: the perspective of Bioethics and transcultural nursing. Medicina E Morale, 2020, 69, 493-502.	0.0	1
115	The preservation of the CE mark for a medical device further to a maintenance process. , 2009, , .		0
116	A Mobile PC Workstation for Bedside Nursing Activities. , 2010, , .		0
117	Editorial. Healthcare Technology Letters, 2015, 2, 78-78.	1.9	0
118	Early Stage Healthcare Technology Assessment. , 2016, , 95-115.		0
119	Patient safety revisited. , 2020, , 330-334.		0
120	Evidence generation in medicine. , 2020, , 818-820.		0
121	Systematic literature review and meta-analysis: The case of medical devices and medical locations. , 2020, , 821-828.		0
122	A MATLAB App to Assess, Compare and Validate New Methods Against Their Benchmarks. IFMBE Proceedings, 2021, , 10-21.	0.2	0
123	AHP FOR HTA OF SPINE SURGICAL DEVICES. , 2011, , .		0
124	A MATLAB VISUAL TOOL FOR ANALYTIC HIERARCHY PROCESS. , 2011, , .		0
125	A Preliminary Model to Choose the Most Appropriate Target Population for Home Monitoring Telemedicine Interventions Basing on the Best Available Evidence. Lecture Notes in Computer Science, 2014, , 406-408.	1.0	0
126	A Decision Support Tool to Support Innovative and Strategic Processes. , 2014, , .		0

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127	Early stage Health Technology Assessment of Electrochemotherapy of skin-directed therapy for skin melanoma and Basal Cell Carcinoma. IFMBE Proceedings, 2018, , 727-730.	0.2	0
128	Biomedical Engineering Education: Need for Harmonisation. IFMBE Proceedings, 2018, , 888-891.	0.2	0
129	Promises and Challenges in the Use of Wearable Sensors and Nonlinear Signal Analysis for Balance and Fall Risk Assessment in Older Adults. IFMBE Proceedings, 2020, , 288-295.	0.2	0
130	Main Barriers and Needs to Support Clinical Cancer Research via Health Informatics. IFMBE Proceedings, 2020, , 174-182.	0.2	0
131	Guest Editorial Enabling Technologies for Next Generation Telehealthcare. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 4240-4242.	3.9	0
132	Hypertension Diagnosis and Management in Africa Using Mobile Phones: A Scoping Review. IEEE Reviews in Biomedical Engineering, 2024, 17, 197-211.	13.1	0