

# Oliver Faust

## List of Publications by Year in descending order

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Version: 2024-02-01

99  
papers

5,241  
citations

101384

36  
h-index

88477

70  
g-index

102  
all docs

102  
docs citations

102  
times ranked

4768  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deep learning for healthcare applications based on physiological signals: A review. <i>Computer Methods and Programs in Biomedicine</i> , 2018, 161, 1-13.	2.6	716
2	Wavelet-based EEG processing for computer-aided seizure detection and epilepsy diagnosis. <i>Seizure: the Journal of the British Epilepsy Association</i> , 2015, 26, 56-64.	0.9	430
3	Non-linear analysis of EEG signals at various sleep stages. <i>Computer Methods and Programs in Biomedicine</i> , 2005, 80, 37-45.	2.6	348
4	Algorithms for the Automated Detection of Diabetic Retinopathy Using Digital Fundus Images: A Review. <i>Journal of Medical Systems</i> , 2012, 36, 145-157.	2.2	231
5	Automated detection of atrial fibrillation using long short-term memory network with RR interval signals. <i>Computers in Biology and Medicine</i> , 2018, 102, 327-335.	3.9	214
6	AUTOMATIC IDENTIFICATION OF EPILEPTIC AND BACKGROUND EEG SIGNALS USING FREQUENCY DOMAIN PARAMETERS. <i>International Journal of Neural Systems</i> , 2010, 20, 159-176.	3.2	145
7	Linear and nonlinear analysis of normal and CAD-affected heart rate signals. <i>Computer Methods and Programs in Biomedicine</i> , 2014, 113, 55-68.	2.6	145
8	Comprehensive electrocardiographic diagnosis based on deep learning. <i>Artificial Intelligence in Medicine</i> , 2020, 103, 101789.	3.8	137
9	Breast imaging: A survey. <i>World Journal of Clinical Oncology</i> , 2011, 2, 171.	0.9	122
10	Automated identification of normal and diabetes heart rate signals using nonlinear measures. <i>Computers in Biology and Medicine</i> , 2013, 43, 1523-1529.	3.9	121
11	ThyroScreen system: High resolution ultrasound thyroid image characterization into benign and malignant classes using novel combination of texture and discrete wavelet transform. <i>Computer Methods and Programs in Biomedicine</i> , 2012, 107, 233-241.	2.6	120
12	Cost-Effective and Non-Invasive Automated Benign & Malignant Thyroid Lesion Classification in 3D Contrast-Enhanced Ultrasound Using Combination of Wavelets and Textures: A Class of ThyroScanâ„¢ Algorithms. <i>Technology in Cancer Research and Treatment</i> , 2011, 10, 371-380.	0.8	106
13	Symptomatic vs. Asymptomatic Plaque Classification in Carotid Ultrasound. <i>Journal of Medical Systems</i> , 2012, 36, 1861-1871.	2.2	105
14	A review of automated sleep stage scoring based on physiological signals for the new millennia. <i>Computer Methods and Programs in Biomedicine</i> , 2019, 176, 81-91.	2.6	104
15	Nonlinear Dynamics Measures for Automated EEG-Based Sleep Stage Detection. <i>European Neurology</i> , 2015, 74, 268-287.	0.6	95
16	Analysis of EEG signals during epileptic and alcoholic states using AR modeling techniques. <i>Irbm</i> , 2008, 29, 44-52.	3.7	94
17	DEPRESSION DIAGNOSIS SUPPORT SYSTEM BASED ON EEG SIGNAL ENTROPIES. <i>Journal of Mechanics in Medicine and Biology</i> , 2014, 14, 1450035.	0.3	90
18	Application of infrared thermography in computer aided diagnosis. <i>Infrared Physics and Technology</i> , 2014, 66, 160-175.	1.3	88

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19	Transfer learning techniques for medical image analysis: A review. Biocybernetics and Biomedical Engineering, 2022, 42, 79-107.	3.3	81
20	Automated detection of sleep apnea from electrocardiogram signals using nonlinear parameters. Physiological Measurement, 2011, 32, 287-303.	1.2	77
21	An Accurate and Generalized Approach to Plaque Characterization in 346 Carotid Ultrasound Scans. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 1045-1053.	2.4	71
22	Automated ASD detection using hybrid deep lightweight features extracted from EEG signals. Computers in Biology and Medicine, 2021, 134, 104548.	3.9	71
23	Understanding symptomatology of atherosclerotic plaque by image-based tissue characterization. Computer Methods and Programs in Biomedicine, 2013, 110, 66-75.	2.6	70
24	NONLINEAR ANALYSIS OF PHYSIOLOGICAL SIGNALS: A REVIEW. Journal of Mechanics in Medicine and Biology, 2012, 12, 1240015.	0.3	69
25	Automated Detection of Sleep Stages Using Deep Learning Techniques: A Systematic Review of the Last Decade (2010–2020). Applied Sciences (Switzerland), 2020, 10, 8963.	1.3	65
26	Analysis of cardiac signals using spatial filling index and time-frequency domain. BioMedical Engineering OnLine, 2004, 3, 30.	1.3	64
27	An integrated diabetic index using heart rate variability signal features for diagnosis of diabetes. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 222-234.	0.9	62
28	Ultrasound-based tissue characterization and classification of fatty liver disease: A screening and diagnostic paradigm. Knowledge-Based Systems, 2015, 75, 66-77.	4.0	62
29	Formal Design Methods for Reliable Computer-Aided Diagnosis: A Review. IEEE Reviews in Biomedical Engineering, 2012, 5, 15-28.	13.1	61
30	Future IoT tools for COVID-19 contact tracing and prediction: A review of the state-of-the-art. International Journal of Imaging Systems and Technology, 2021, 31, 455-471.	2.7	58
31	COMPUTER-BASED IDENTIFICATION OF NORMAL AND ALCOHOLIC EEG SIGNALS USING WAVELET PACKETS AND ENERGY MEASURES. Journal of Mechanics in Medicine and Biology, 2013, 13, 1350033.	0.3	53
32	Linear and non-linear analysis of cardiac health in diabetic subjects. Biomedical Signal Processing and Control, 2012, 7, 295-302.	3.5	50
33	AUTOMATED GLAUCOMA DETECTION USING HYBRID FEATURE EXTRACTION IN RETINAL FUNDUS IMAGES. Journal of Mechanics in Medicine and Biology, 2013, 13, 1350011.	0.3	47
34	A REVIEW OF ECG-BASED DIAGNOSIS SUPPORT SYSTEMS FOR OBSTRUCTIVE SLEEP APNEA. Journal of Mechanics in Medicine and Biology, 2016, 16, 1640004.	0.3	47
35	Automated blast cell detection for Acute Lymphoblastic Leukemia diagnosis. Biomedical Signal Processing and Control, 2021, 68, 102690.	3.5	47
36	Application of photoplethysmography signals for healthcare systems: An in-depth review. Computer Methods and Programs in Biomedicine, 2022, 216, 106677.	2.6	39

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37	Computer aided diagnosis of Coronary Artery Disease, Myocardial Infarction and carotid atherosclerosis using ultrasound images: A review. <i>Physica Medica</i> , 2017, 33, 1-15.	0.4	38
38	Comparative assessment of texture features for the identification of cancer in ultrasound images: a review. <i>Biocybernetics and Biomedical Engineering</i> , 2018, 38, 275-296.	3.3	37
39	Accurate detection of sleep apnea with long short-term memory network based on RR interval signals. <i>Knowledge-Based Systems</i> , 2021, 212, 106591.	4.0	37
40	Automated Diagnosis of Depression Electroencephalograph Signals Using Linear Prediction Coding and Higher Order Spectra Features. <i>Journal of Medical Imaging and Health Informatics</i> , 2017, 7, 1857-1862.	0.2	35
41	Heart rate variability for medical decision support systems: A review. <i>Computers in Biology and Medicine</i> , 2022, 145, 105407.	3.9	30
42	Automated Detection of Alcohol Related Changes in Electroencephalograph Signals. <i>Journal of Medical Imaging and Health Informatics</i> , 2013, 3, 333-339.	0.2	27
43	Automatic detection of ischemic stroke using higher order spectra features in brain MRI images. <i>Cognitive Systems Research</i> , 2019, 58, 134-142.	1.9	27
44	A Review of Atrial Fibrillation Detection Methods as a Service. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 3093.	1.2	25
45	A Smart Service Platform for Cost Efficient Cardiac Health Monitoring. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 6313.	1.2	24
46	Automated Arrhythmia Detection Based on RR Intervals. <i>Diagnostics</i> , 2021, 11, 1446.	1.3	24
47	Atheromatic&#x2122;; Symptomatic vs. asymptomatic classification of carotid ultrasound plaque using a combination of HOS, DWT & texture. , 2011, 2011, 4489-92.		23
48	A systematic approach to embedded biomedical decision making. <i>Computer Methods and Programs in Biomedicine</i> , 2012, 108, 656-664.	2.6	22
49	An Accurate Multiple Sclerosis Detection Model Based on Exemplar Multiple Parameters Local Phase Quantization: ExMPLPQ. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 4920.	1.3	22
50	Automated classification of five arrhythmias and normal sinus rhythm based on RR interval signals. <i>Expert Systems With Applications</i> , 2021, 181, 115031.	4.4	20
51	Systems engineering principles for the design of biomedical signal processing systems. <i>Computer Methods and Programs in Biomedicine</i> , 2011, 102, 267-276.	2.6	18
52	Towards the Systematic Development of Medical Networking Technology. <i>Journal of Medical Systems</i> , 2011, 35, 1431-1445.	2.2	18
53	Application of nonlinear methods to discriminate fractionated electrograms in paroxysmal versus persistent atrial fibrillation. <i>Computer Methods and Programs in Biomedicine</i> , 2019, 175, 163-178.	2.6	18
54	COMPUTER AIDED DIAGNOSIS FOR CARDIOVASCULAR DISEASES BASED ON ECG SIGNALS: A SURVEY. <i>Journal of Mechanics in Medicine and Biology</i> , 2016, 16, 1640001.	0.3	17

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55	Documenting and predicting topic changes in Computers in Biology and Medicine: A bibliometric keyword analysis from 1990 to 2017. Informatics in Medicine Unlocked, 2018, 11, 15-27.	1.9	16
56	Validating the robustness of an internet of things based atrial fibrillation detection system. Pattern Recognition Letters, 2020, 133, 55-61.	2.6	16
57	Compressed sampling for heart rate monitoring. Computer Methods and Programs in Biomedicine, 2012, 108, 1191-1198.	2.6	15
58	Cardiac Arrhythmia Classification Using Electrocardiogram. Journal of Medical Imaging and Health Informatics, 2013, 3, 448-454.	0.2	14
59	Hybrid Deep Feature Generation for Appropriate Face Mask Use Detection. International Journal of Environmental Research and Public Health, 2022, 19, 1939.	1.2	14
60	The role of real-time in biomedical science: A meta-analysis on computational complexity, delay and speedup. Computers in Biology and Medicine, 2015, 58, 73-84.	3.9	13
61	Automated Classification of Normal and Premature Ventricular Contractions in Electrocardiogram Signals. Journal of Medical Imaging and Health Informatics, 2014, 4, 886-892.	0.2	13
62	AUTOMATED CHARACTERIZATION OF CARDIOVASCULAR DISEASES USING WAVELET TRANSFORM FEATURES EXTRACTED FROM ECG SIGNALS. Journal of Mechanics in Medicine and Biology, 2019, 19, 1940009.	0.3	12
63	COMPREHENSIVE ANALYSIS OF NORMAL AND DIABETIC HEART RATE SIGNALS: A REVIEW. Journal of Mechanics in Medicine and Biology, 2012, 12, 1240033.	0.3	11
64	A Systems Approach to Cardiac Health Diagnosis. Journal of Medical Imaging and Health Informatics, 2013, 3, 261-267.	0.2	11
65	Improving the safety of atrial fibrillation monitoring systems through human verification. Safety Science, 2019, 118, 881-886.	2.6	11
66	Heart Rate Variability Analysis for Different Age and Gender. Journal of Medical Imaging and Health Informatics, 2013, 3, 395-400.	0.2	11
67	A Comparative Study of Different Entropies for Spectrum Sensing Techniques. Wireless Personal Communications, 2013, 69, 1719-1733.	1.8	10
68	Design and features of an intelligent PC-based DAB receiver. IEEE Transactions on Consumer Electronics, 2002, 48, 322-328.	3.0	8
69	EFFECTS OF MOBILE PHONE RADIATION ON CARDIAC HEALTH. Journal of Mechanics in Medicine and Biology, 2011, 11, 1241-1253.	0.3	8
70	Design of a fault-tolerant decision-making system for biomedical applications. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 725-735.	0.9	8
71	Wavelet Based Machine Learning Techniques for Electrocardiogram Signal Analysis. Journal of Medical Imaging and Health Informatics, 2014, 4, 737-742.	0.2	8
72	Hybrid Decision Support to Monitor Atrial Fibrillation for Stroke Prevention. International Journal of Environmental Research and Public Health, 2021, 18, 813.	1.2	8

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73	A Pervasive Design Strategy for Distributed Health Care Systems. Open Medical Informatics Journal, 2008, 2, 58-69.	1.0	8
74	Channel estimation algorithms for OFDM systems. International Journal of Signal and Imaging Systems Engineering, 2012, 5, 267.	0.6	7
75	A review of patient-led data acquisition for atrial fibrillation detection to prevent stroke. Biomedical Signal Processing and Control, 2021, 69, 102818.	3.5	7
76	Data Overloading in Medical Imaging: Emerging Issues, Challenges and Opportunities in Efficient Data Management. Journal of Medical Imaging and Health Informatics, 2015, 5, 755-764.	0.2	6
77	HEART-RATE BASED SLEEP APNEA DETECTION USING ARDUINO. Journal of Mechanics in Medicine and Biology, 2019, 19, 1940006.	0.3	6
78	Automated Detection of Premature Ventricular Contraction Using Recurrence Quantification Analysis on Heart Rate Signals. Journal of Medical Imaging and Health Informatics, 2013, 3, 462-469.	0.2	5
79	COMPUTER-BASED IDENTIFICATION OF CATARACT AND CATARACT SURGERY EFFICACY USING OPTICAL IMAGES. Journal of Mechanics in Medicine and Biology, 2009, 09, 589-607.	0.3	4
80	Automated Detection of Pulmonary Edema and Respiratory Failure Using Physiological Signals. Journal of Medical Imaging and Health Informatics, 2013, 3, 424-431.	0.2	3
81	Cardiac Health Visualization and Diagnosis Using Entropies. Journal of Medical Imaging and Health Informatics, 2013, 3, 409-416.	0.2	3
82	NONLINEAR ANALYSIS OF CORONARY ARTERY DISEASE, MYOCARDIAL INFARCTION, AND NORMAL ECG SIGNALS. Journal of Mechanics in Medicine and Biology, 2017, 17, 1740006.	0.3	3
83	ALGORITHM FOR THE DETECTION OF CONGESTIVE HEART FAILURE INDEX. Journal of Mechanics in Medicine and Biology, 2017, 17, 1740043.	0.3	3
84	Integrated index for cardiac arrhythmias diagnosis using entropies as features of heart rate variability signal. , 2011, , .		2
85	Data Mining Framework for Breast Cancer Detection in Mammograms: A Hybrid Feature Extraction Paradigm. Journal of Medical Imaging and Health Informatics, 2014, 4, 756-765.	0.2	2
86	UNCOVERING DESIGN TOPICS BY VISUALIZING AND INTERPRETING KEYWORD DATA. , 0, , .		2
87	FORMAL AND MODEL DRIVEN DESIGN OF A HIGH SPEED DATA TRANSMISSION CHANNEL. Journal of Circuits, Systems and Computers, 2013, 22, 1340038.	1.0	1
88	Getting practical with digital: An integrated electronic design project for undergraduates. , 2015, , .		1
89	Fusion of Higher Order Spectra and Texture Extraction Methods for Automated Stroke Severity Classification with MRI Images. International Journal of Environmental Research and Public Health, 2021, 18, 8059.	1.2	1
90	Ethics of Biomaterials for Implants. , 2013, , 59-75.		1

#	ARTICLE	IF	CITATIONS
91	Fusion of B-mode and shear wave elastography ultrasound features for automated detection of axillary lymph node metastasis in breast carcinoma. Expert Systems, 2022, 39, .	2.9	1
92	Real-time decoding and streaming of DAB audio frames by a user-space program running on a non-real-time OS. IEEE Transactions on Consumer Electronics, 2002, 48, 313-321.	3.0	0
93	Automatic Diagnosis of Glaucoma Using Digital Fundus Images. , 2011, , 207-226.		0
94	Computer-Aided Diagnosis of Diabetic Retinopathy Stages Using Digital Fundus Images. , 2011, , 301-317.		0
95	FORMAL AND MODEL DRIVEN DESIGN OF THE BRIGHT LIGHT THERAPY SYSTEM LUXAMET. Journal of Mechanics in Medicine and Biology, 2016, 16, 1650065.	0.3	0
96	Establishing the safety of a smart heart health monitoring service through validation. , 2019, , .		0
97	Atrial fibrillation detection service validation tool. Software Impacts, 2021, 10, 100117.	0.8	0
98	Symptomatic Versus Asymptomatic Plaque Classification in Carotid Ultrasound. , 2014, , 399-408.		0
99	A review of automated sleep stage scoring. , 2021, , .		0