Wei Chen

List of Publications by Year
in descending order

65 papers	2,166 citations	218677 26 h-index	243625 44 g-index
66 all docs	66 docs citations	66 times ranked	2708 citing authors

#	Article	IF	Citations
1	Interactive wearable systems for upper body rehabilitation: a systematic review. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 20.	4.6	245
2	A Novel Cardiac Auscultation Monitoring System Based on Wireless Sensing for Healthcare. IEEE Journal of Translational Engineering in Health and Medicine, 2018, 6, 1-12.	3.7	213
3	Wearable Sensing and Telehealth Technology with Potential Applications in the Coronavirus Pandemic. IEEE Reviews in Biomedical Engineering, 2021, 14, 48-70.	18.0	174
4	Epilepsy Seizure Prediction on EEG Using Common Spatial Pattern and Convolutional Neural Network. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 465-474.	6.3	157
5	Highly Sensitive and Large-Range Strain Sensor with a Self-Compensated Two-Order Structure for Human Motion Detection. ACS Applied Materials & Interfaces, 2019, 11, 8527-8536.	8.0	113
6	A Review of Wearable Sensor Systems for Monitoring Body Movements of Neonates. Sensors, 2016, 16, 2134.	3.8	73
7	Smart Aging System: Uncovering the Hidden Wellness Parameter for Well-Being Monitoring and Anomaly Detection. Sensors, 2019, 19, 766.	3.8	62
8	MetaSleepLearner: A Pilot Study on Fast Adaptation of Bio-Signals-Based Sleep Stage Classifier to New Individual Subject Using Meta-Learning. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 1949-1963.	6.3	60
9	A review of wearable and unobtrusive sensing technologies for chronic disease management. Computers in Biology and Medicine, 2021, 129, 104163.	7.0	55
10	A Hierarchical Neural Network for Sleep Stage Classification Based on Comprehensive Feature Learning and Multi-Flow Sequence Learning. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 1351-1366.	6.3	52
11	Potential Applications of Mobile and Wearable Devices for Psychological Support During the COVID-19 Pandemic: A Review. IEEE Sensors Journal, 2021, 21, 7162-7178.	4.7	45
12	Open Access Dataset, Toolbox and Benchmark Processing Results of High-Density Surface Electromyogram Recordings. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1035-1046.	4.9	44
13	Information and Communication Systems to Tackle Barriers to Breastfeeding: Systematic Search and Review. Journal of Medical Internet Research, 2019, 21, e13947.	4.3	43
14	Sensor-Driven Achieving of Smart Living: A Review. IEEE Sensors Journal, 2021, 21, 10369-10391.	4.7	40
15	Design of an Integrated Wearable Multi-Sensor Platform Based on Flexible Materials for Neonatal Monitoring. IEEE Access, 2020, 8, 23732-23747.	4.2	36
16	Comparison of Active Electrode Materials for Non-Contact ECG Measurement. Sensors, 2019, 19, 3585.	3.8	33
17	Enhancing IoT Security via Cancelable HD-sEMG-Based Biometric Authentication Password, Encoded by Gesture. IEEE Internet of Things Journal, 2021, 8, 16535-16547.	8.7	33
18	Neuromuscular Password-Based User Authentication. IEEE Transactions on Industrial Informatics, 2021, 17, 2641-2652.	11.3	32

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19	Non-Wearable IoT-Based Smart Ambient Behavior Observation System. IEEE Sensors Journal, 2021, 21, 20857-20869.	4.7	32
20	EEG-Based Neonatal Sleep-Wake Classification Using Multilayer Perceptron Neural Network. IEEE Access, 2020, 8, 183025-183034.	4.2	31
21	Wavelet Domain Optimized Savitzkyâ€"Golay Filter for the Removal of Motion Artifacts From EEG Recordings. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	31
22	Novel Flexible Material-Based Unobtrusive and Wearable Body Sensor Networks for Vital Sign Monitoring. IEEE Sensors Journal, 2019, 19, 8502-8513.	4.7	30
23	Deep Residual Networks for Sleep Posture Recognition With Unobtrusive Miniature Scale Smart Mat System. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 111-121.	4.0	30
24	Cancelable HD-sEMG-Based Biometrics for Cross-Application Discrepant Personal Identification. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 1070-1079.	6.3	29
25	Epileptic Seizure Detection by Cascading Isolation Forest-Based Anomaly Screening and EasyEnsemble. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 915-924.	4.9	28
26	Motion artifact removal based on periodical property for ECG monitoring with wearable systems. Pervasive and Mobile Computing, 2017, 40, 267-278.	3.3	27
27	Bio-Signal Complexity Analysis in Epileptic Seizure Monitoring: A Topic Review. Sensors, 2018, 18, 1720.	3.8	27
28	Editorial Special Issue on â€œAI-Driven Informatics, Sensing, Imaging and Big Data Analytics for Fighting the COVID-19 Pandemicâ€. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 2731-2732.	6.3	26
29	Photoplethysmography Motion Artifacts Removal Based on Signal-Noise Interaction Modeling Utilizing Envelope Filtering and Time-Delay Neural Network. IEEE Sensors Journal, 2020, 20, 3732-3744.	4.7	24
30	Motor Control Training for the Shoulder with Smart Garments. Sensors, 2017, 17, 1687.	3.8	23
31	Cross-Comparison of EMG-to-Force Methods for Multi-DoF Finger Force Prediction Using One-DoF Training. IEEE Access, 2020, 8, 13958-13968.	4.2	22
32	A Hybrid DCNN-SVM Model for Classifying Neonatal Sleep and Wake States Based on Facial Expressions in Video. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 1441-1449.	6.3	22
33	Data Management for Transfer Learning Approaches to Elbow EMG-Torque Modeling. IEEE Transactions on Biomedical Engineering, 2021, 68, 2592-2601.	4.2	20
34	EEG classification by filter band component regularized common spatial pattern for motor imagery. Biomedical Signal Processing and Control, 2020, 59, 101917.	5.7	19
35	Frequency Network Analysis of Heart Rate Variability for Obstructive Apnea Patient Detection. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 1895-1905.	6.3	18
36	Stochastic Modeling Based Nonlinear Bayesian Filtering for Photoplethysmography Denoising in Wearable Devices. IEEE Transactions on Industrial Informatics, 2020, 16, 7219-7230.	11.3	17

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37	Unsupervised Domain Adaptation by Statistics Alignment for Deep Sleep Staging Networks. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 205-216.	4.9	17
38	Flexible Electrodes-Based Smart Mattress for Monitoring Physiological Signals of Heart and Autonomic Nerves in a Non-Contact Way. IEEE Sensors Journal, 2021, 21, 6-15.	4.7	15
39	Measuring and Localizing Individual Bites Using a Sensor Augmented Plate During Unrestricted Eating for the Aging Population. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 1509-1518.	6.3	13
40	Novel Framework: Face Feature Selection Algorithm for Neonatal Facial and Related Attributes Recognition. IEEE Access, 2020, 8, 59100-59113.	4.2	12
41	Cancelable HD-SEMG Biometric Identification via Deep Feature Learning. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 1782-1793.	6.3	12
42	A Compressed Sensing Based Method for Reducing the Sampling Time of A High Resolution Pressure Sensor Array System. Sensors, 2017, 17, 1848.	3.8	11
43	Can pre-trained convolutional neural networks be directly used as a feature extractor for video-based neonatal sleep and wake classification?. BMC Research Notes, 2020, 13, 507.	1.4	11
44	Caffeine Effect on Cognitive Function during a Stroop Task: fNIRS Study. Neural Plasticity, 2020, 2020, 1-8.	2.2	10
45	Changes in synchronization of the motor unit in muscle fatigue condition during the dynamic and isometric contraction in the Biceps Brachii muscle. Neuroscience Letters, 2021, 761, 136101.	2.1	10
46	The Masking Impact of Intra-Artifacts in EEG on Deep Learning-Based Sleep Staging Systems: A Comparative Study. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 1452-1463.	4.9	10
47	Consume: A privacy-preserving authorisation and authentication service for connecting with health and wellbeing APIs. Pervasive and Mobile Computing, 2018, 43, 20-26.	3.3	9
48	Stroke Patients' Acceptance of a Smart Garment for Supporting Upper Extremity Rehabilitation. IEEE Journal of Translational Engineering in Health and Medicine, 2018, 6, 1-9.	3.7	9
49	Quantifying Spatial Activation Patterns of Motor Units in Finger Extensor Muscles. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 647-655.	6.3	7
50	Guest Editorial: Blockchain and Healthcare Computing. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 2144-2145.	6.3	6
51	Detecting hand washing activity among activities of daily living and classification of WHO hand washing techniques using wearable devices and machine learning algorithms. Healthcare Technology Letters, 2021, 8, 148-158.	3.3	6
52	A Two-Layer Ensemble Method for Detecting Epileptic Seizures Using a Self-Annotation Bracelet With Motor Sensors. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-13.	4.7	6
53	MSSET: A high-performance time-frequency analysis method for sparse-spectrum biomedical signal. Computers in Biology and Medicine, 2021, 135, 104637.	7.0	5
54	Camera-based heart rate estimation for hospitalized newborns in the presence of motion artifacts. BioMedical Engineering OnLine, 2021, 20, 122.	2.7	5

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55	Nonlinear directed information flow estimation for fNIRS brain network analysis based on the modified multivariate transfer entropy. Biomedical Signal Processing and Control, 2022, 74, 103422.	5.7	5
56	A Hybrid Expert System for Individualized Quantification of Electrical Status Epilepticus During Sleep Using Biogeography-Based Optimization. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 1920-1930.	4.9	5
57	Recent Advances in Atherosclerotic Disease Screening Using Pervasive Healthcare. IEEE Reviews in Biomedical Engineering, 2022, 15, 293-308.	18.0	4
58	Effect of Light on Cognitive Function During a Stroop Task Using Functional Near-Infrared Spectroscopy. Phenomics, 2021, 1, 54.	2.9	4
59	Real-Time and Cost-Effective Smart Mat System Based on Frequency Channel Selection for Sleep Posture Recognition in IoMT. IEEE Internet of Things Journal, 2022, 9, 21421-21431.	8.7	3
60	Can Wearable Devices and Machine Learning Techniques Be Used for Recognizing and Segmenting Modified Physical Performance Test Items?. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 1776-1785.	4.9	2
61	An energy screening and morphology characterization-based hybrid expert scheme for automatic identification of micro-sleep event K-complex. Computer Methods and Programs in Biomedicine, 2021, 201, 105955.	4.7	1
62	Predicting Feeding Conditions of Premature Infants Through Non-Nutritive Sucking Skills Using a Sensitized Pacifier. IEEE Transactions on Biomedical Engineering, 2022, 69, 2370-2378.	4.2	1
63	fNIRS-Based Dynamic Functional Connectivity Reveals the Innate Musical Sensing Brain Networks in Preterm Infants. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, , 1-1.	4.9	1
64	Systematic Analysis for fNIRS Measurement Combining Sensitivity and SNR Based on the Colin27 Brain Template. IEEE Photonics Journal, 2020, 12, 1-13.	2.0	0
65	Guest Editorial: Integrative Sensor Networks, Informatics, and Modeling for Precision and Preventative Medicine. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 1858-1859.	6.3	0