

Peng Un Mak

List of Publications by Year in descending order

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122
papers

1,420
citations

623699

14
h-index

454934

30
g-index

125
all docs

125
docs citations

125
times ranked

1424
citing authors

#	ARTICLE	IF	CITATIONS
1	Individual alpha neurofeedback training effect on short term memory. International Journal of Psychophysiology, 2012, 86, 83-87.	1.0	167
2	A 0.83- μm Wavelength QRS Detection Processor Using Quadratic Spline Wavelet Transform for Wireless ECG Acquisition in 0.35- μm CMOS. IEEE Transactions on Biomedical Circuits and Systems, 2012, 6, 586-595.	4.0	112
3	Quasi-Static Modeling of Human Limb for Intra-Body Communications With Experiments. IEEE Transactions on Information Technology in Biomedicine, 2011, 15, 870-876.	3.2	82
4	Implementation of SSVEP based BCI with Emotiv EPOC. , 2012, , .		75
5	Learning across multi-stimulus enhances target recognition methods in SSVEP-based BCIs. Journal of Neural Engineering, 2020, 17, 016026.	3.5	70
6	15-nW Biopotential LPFs in 0.35- μm CMOS Using Subthreshold-Source-Follower Biquads With and Without Gain Compensation. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 690-702.	4.0	63
7	The design and application of electron cyclotron resonance discharges. IEEE Transactions on Plasma Science, 1997, 25, 1196-1221.	1.3	52
8	A comparison of minimum energy combination and canonical correlation analysis for SSVEP detection. , 2011, , .		40
9	An Integrated Circuit for Simultaneous Extracellular Electrophysiology Recording and Optogenetic Neural Manipulation. IEEE Transactions on Biomedical Engineering, 2017, 64, 557-568.	4.2	37
10	Study of Channel Characteristics for Galvanic-Type Intra-Body Communication Based on a Transfer Function from a Quasi-Static Field Model. Sensors, 2012, 12, 16433-16450.	3.8	35
11	Monolithic Multiband CMUTs for Photoacoustic Computed Tomography With <i>In Vivo</i> Biological Tissue Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 465-475.	3.0	28
12	A Novel Field-Circuit FEM Modeling and Channel Gain Estimation for Galvanic Coupling Real IBC Measurements. Sensors, 2016, 16, 471.	3.8	24
13	Ion and neutral energies in a multipolar electron cyclotron resonance plasma source. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 1265-1269.	2.1	23
14	Flashing color on the performance of SSVEP-based brain-computer interfaces. , 2012, 2012, 1819-22.		21
15	Fatigue Evaluation Using Multi-Scale Entropy of EEG in SSVEP-Based BCI. IEEE Access, 2019, 7, 108200-108210.	4.2	21
16	Hardware-accelerated implementation of EMD. , 2010, , .		20
17	A 90nm CMOS bio-potential signal readout front-end with improved powerline interference rejection. , 2009, , .		18
18	Single-Channel Selection for EEG-Based Emotion Recognition Using Brain Rhythm Sequencing. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 2493-2503.	6.3	18

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19	Muscle and electrode motion artifacts reduction in ECG using adaptive Fourier decomposition. , 2014, , .		17
20	Brain Rhythm Sequencing Using EEG Signals: A Case Study on Seizure Detection. IEEE Access, 2019, 7, 160112-160124.	4.2	17
21	Design of a Collapse-Mode CMUT With an Embossed Membrane for Improving Output Pressure. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 854-863.	3.0	16
22	Low-latency single channel real-time neural spike sorting system based on template matching. PLoS ONE, 2019, 14, e0225138.	2.5	15
23	Comparison of different classification methods for EEG-based brain computer interfaces: A case study. , 2009, , .		14
24	Investigation of the influence of electromagnetic excitation on electron cyclotron resonance discharge properties. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 1281-1287.	2.1	13
25	Effects of human limb gestures on galvanic coupling intra-body communication for advanced healthcare system. BioMedical Engineering OnLine, 2016, 15, 60.	2.7	13
26	Control of multipolar electron cyclotron resonance discharges using internal cavity impedance	1.3	12
27	A 2.4 Hz-to-10 kHz-tunable biopotential filter using a novel capacitor multiplier. , 2009, , .		12
28	Frequency-bandwidth-tunable powerline notch filter for biopotential acquisition systems. Electronics Letters, 2009, 45, 197.	1.0	12
29	A high rate online SSVEP based brain-computer interface speller. , 2011, , .		12
30	Development of a multi-band photoacoustic tomography imaging system based on a capacitive micromachined ultrasonic transducer array. Applied Optics, 2017, 56, 4012.	2.1	12
31	ECG Parameter Extractor of Intelligent Home Healthcare Embedded System. , 2005, 2006, 110-3.		10
32	Flexible Implementation of Front-End Bioelectric Signal Amplifier using FPAA for Telemedicine System. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 3721-4.	0.5	10
33	QRS Recognition with Programmable Hardware. , 2008, , .		10
34	Circuit Models and Experimental Noise Measurements of Micropipette Amplifiers for Extracellular Neural Recordings from Live Animals. BioMed Research International, 2014, 2014, 1-14.	1.9	10
35	Design of current mode instrumentation amplifier for portable biosignal acquisition system. , 2009, , .		9
36	Modeling for intra-body communication with bone effect. , 2009, 2009, 693-6.		9

#	ARTICLE	IF	CITATIONS
37	Portable heart rate detector based on photoplethysmography with android programmable devices. , 2012, , .		9
38	Improved Analytical Modeling of Membrane Large Deflection With Lateral Force for the Underwater CMUT Based on Von Kármán Equations. IEEE Sensors Journal, 2016, 16, 6633-6640.	4.7	9
39	Experimental Verifications of Low Frequency Path Gain (SPG\$) Channel Modeling for Implantable Medical Device (IMD). IEEE Access, 2019, 7, 11934-11945.	4.2	9
40	Experimental investigation of the matching and impressed electric field of a multipolar electron cyclotron resonance discharge. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 154-168.	2.1	8
41	Quasi-Static Field Modeling and Validation for Intra-Body Communication. , 2009, , .		8
42	An improved phase-tagged stimuli generation method in steady-state visual evoked potential based brain-computer interface. , 2010, , .		8
43	Trial pruning based on genetic algorithm for single-trial EEG classification. Computers and Electrical Engineering, 2012, 38, 35-44.	4.8	8
44	Gabor Wavelets Transform and Extended Nearest Feature Space Classifier for Face Recognition. , 0, , .		7
45	A multilayer cylindrical volume conductor model for galvanic coupling intra-body communication. , 2009, , .		7
46	Gaussian mixture model based on genetic algorithm for brain-computer interface. , 2010, , .		7
47	Galvanic Intrabody Communication for Affective Acquiring and Computing. IEEE Transactions on Affective Computing, 2012, 3, 145-151.	8.3	7
48	Beta/theta ratio neurofeedback training effects on the spectral topography of EEG. , 2015, 2015, 4741-4.		7
49	Development of a Calibration Strip for Immunochromatographic Assay Detection Systems. Sensors, 2016, 16, 1007.	3.8	7
50	Three-Dimensional Segmentation and Quantitative Measurement of the Aqueous Outflow System of Intact Mouse Eyes Based on Spectral Two-Photon Microscopy Techniques. , 2016, 57, 3159.		7
51	A Computation Resource Friendly Convolutional Neural Network Engine For EEG-based Emotion Recognition. , 2019, , .		7
52	EEG signals classification for brain computer interfaces based on Gaussian process classifier. , 2009, , .		6
53	ECG heart beat detection via Mathematical Morphology and Quadratic Spline wavelet transform. , 2011, , .		6
54	An online SSVEP-based chatting system. , 2011, , .		6

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55	A Wearable Wireless General Purpose Bio-signal Acquisition Prototype System for Home Healthcare. , 2012, , .		6
56	Direct Measurement of Elbow Joint Angle Using Galvanic Couple System. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 757-766.	4.7	6
57	A Review on Analytical Modeling for Collapse Mode Capacitive Micromachined Ultrasonic Transducer of the Collapse Voltage and the Static Membrane Deflections. Micromachines, 2021, 12, 714.	2.9	6
58	Object Recognition Test in Peripheral Vision: A Study on the Influence of Object Color, Pattern and Shape. Lecture Notes in Computer Science, 2012, , 18-26.	1.3	6
59	Preliminary Modeling for Intra-Body Communication. IFMBE Proceedings, 2009, , 1044-1048.	0.3	5
60	Multilayer limb quasi-static electromagnetic modeling with experiments for Galvanic coupling type IBC. , 2010, 2010, 378-81.		5
61	Neurofeedback for the treatment of schizophrenia: Case study. , 2012, , .		5
62	Time-efficient BER estimation approach using jitter characteristics for HBC channel. IET Science, Measurement and Technology, 2018, 12, 145-150.	1.6	5
63	Development and Prospect of Implantable Intra-Body Communication Technology. Journal of Computers, 2014, 9, .	0.4	5
64	ECG QRS Complex detection with programmable hardware. , 2008, 2008, 2920-3.		4
65	Analysis of op-amp power-supply current sensing current-mode instrumentation amplifier for biosignal acquisition system. , 2008, 2008, 2295-8.		4
66	Simple electrical model and initial experiments for intra-body communications. , 2009, 2009, 697-700.		4
67	General Purpose Adaptive Biosignal Acquisition System Combining FPGA and FPA. IFMBE Proceedings, 2009, , 31-34.	0.3	4
68	A real-time heart beat detector and quantitative investigation based on FPGA. , 2011, , .		4
69	A Solution to harmonic frequency problem: Frequency and phase coding-based brain-computer interface. , 2011, , .		4
70	Signal transmission through human muscle for implantable medical devices using galvanic intra-body communication technique. , 2012, 2012, 1651-4.		4
71	Communication channel modeling of human forearm with muscle fiber tissue characteristics. Technology and Health Care, 2016, 24, 681-687.	1.2	4
72	A Front-end Platform of the Network-based Intelligent Home Healthcare Embedded System. , 2004, 2004, 3116-9.		3

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73	A preliminary two dimensional model for Intra-body Communication of Body Sensor Networks. , 2008, , ,		3
74	Trial pruning for classification of single-trial EEG data during motor imagery. , 2010, 2010, 4666-9.		3
75	Outlier detection for single-trial EEG signal analysis. , 2011, , ,		3
76	Bit error rate estimation for galvanic-type intra-body communication using experimental eye-diagram and jitter characteristics. , 2013, 2013, 5195-8.		3
77	Investigation Performance on Electrocardiogram Signal Processing Based on an Advanced Algorithm Combining Wavelet Packet Transform (WPT) and Hilbert-Huang Transform (HHT)*. Lecture Notes in Electrical Engineering, 2014, , 959-968.	0.4	3
78	A Lateral Flow Immunochromatographic Assay (LFIA) Strip Reader Based on Scheduler and 8051 IP Core. Automatika, 2016, 57, 1079-1088.	2.0	3
79	Initial investigation of channel capacity for galvanic coupling human body communication. , 2016, , ,		3
80	Parallel architecture to accelerate superparamagnetic clustering algorithm. Electronics Letters, 2020, 56, 701-704.	1.0	3
81	Influence of the Surface Material and Illumination upon the Performance of a Microelectrode/Electrolyte Interface in Optogenetics. Micromachines, 2021, 12, 1061.	2.9	3
82	An intelligent mobile cardiovascular monitoring device based on pulse wave. , 0, , ,		2
83	The physical layer design of Intra-Body Communication: Model, transmitter and receiver. , 2011, , ,		2
84	An ultra-low-power filtering technique for biomedical applications. , 2011, 2011, 1859-62.		2
85	Measurement system with experiments for galvanic coupling type intra-body communication. , 2012, , ,		2
86	A Further Study on Short Term Memory Improvement by Neurofeedback. , 2012, , ,		2
87	Output pressure enhancement of CMUTs by using multiple Helmholtz resonance apertures. Electronics Letters, 2015, 51, 1390-1392.	1.0	2
88	An accurate design to calculate and measure the capacitance of CMUT for pressure sensors. , 2016, , ,		2
89	EEG-based Emotion Recognition Under Convolutional Neural Network with Differential Entropy Feature Maps. , 2019, , ,		2
90	Fabrication of embossed capacitive micromachined ultrasonic transducers using sacrificial release process. IEICE Electronics Express, 2019, 16, 20181002-20181002.	0.8	2

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91	Experimental Characterization of an Embossed Capacitive Micromachined Ultrasonic Transducer Cell. <i>Micromachines</i> , 2020, 11, 217.	2.9	2
92	Canonical Correlation Analysis Neural Network for Steady-State Visual Evoked Potentials Based Brain-Computer Interfaces. <i>Lecture Notes in Computer Science</i> , 2013, , 276-283.	1.3	2
93	Face Retrieval with Relevance Feedback Using Lifting Wavelets Features. <i>Applied and Numerical Harmonic Analysis</i> , 2006, , 477-487.	0.3	2
94	Use of Supporting Post Width to Increase the CMUT's Resonant Frequency. <i>IEEE Access</i> , 2022, 10, 59219-59227.	4.2	2
95	Face image retrieval in video sequences using lifting wavelets transform feature extraction. , 0, ,		1
96	Entropy penalized learning for Gaussian mixture models. , 2011, , .		1
97	Robust deterministic annealing based EM algorithm. <i>Electronics Letters</i> , 2012, 48, 289.	1.0	1
98	Parallel design for ultrasound synthetic aperture imaging FPGA. , 2015, , .		1
99	Acceptance angle measurement of CMUTs and PZT ultrasonic transducers. , 2016, , .		1
100	Measurement and analysis of channel attenuation characteristics for an implantable galvanic coupling human-body communication. <i>Technology and Health Care</i> , 2016, 24, 821-826.	1.2	1
101	Analytical model with lateral force for conventional CMUT membranes under large deflection using Von Kármán equations. , 2016, , .		1
102	A Parallel Cell Impedance Measurement System for Real-time Cell Growth Detection. , 2019, , .		1
103	Design and Experiment of Capacitive Micromachined Ultrasonic Transducer Array for High-frequency Underwater Imaging. <i>Recent Advances in Electrical and Electronic Engineering</i> , 2021, 14, 233-240.	0.3	1
104	Emotion Recognition Based on EEG Brain Rhythm Sequencing Technique. <i>IEEE Transactions on Cognitive and Developmental Systems</i> , 2023, 15, 163-174.	3.8	1
105	EEG-based Emotion Recognition Using Similarity Measure of Brain Rhythm Sequencing. , 2021, 2021, 31-34.		1
106	The Network Security Regime for the Hybrid Connection of Healthcare Entities. , 2012, , .		0
107	Robust Learning of Mixture Models and Its Application on Trial Pruning for EEG Signal Analysis. <i>Lecture Notes in Computer Science</i> , 2012, , 408-419.	1.3	0
108	Standard cell library design with voltage scaling and transistor sizing for ultra-low-power biomedical applications. , 2013, , .		0

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109	Improved transfer function with phase response from quasi-static field modeling for galvanic-type intra-body communication. , 2013, , .		0
110	Investigation on error performance for galvanic-type intra-body Communication with Experiment. , 2014, , .		0
111	How Mental Strategy Affects Beta/Theta Neurofeedback Training. IFMBE Proceedings, 2015, , 1250-1253.	0.3	0
112	An ASIC based strip reader controller in 0.18 μ m CMOS technology for lateral flow immunoassay. , 2016, , .		0
113	Investigation of residual Ag amount into human body using Ag/AgCl electrodes during IBC. , 2016, , .		0
114	Reception Performance Enhancement of Capacitive Micromachined Ultrasonic Transducers Via Modified Membrane Structures. IFMBE Proceedings, 2017, , 111-116.	0.3	0
115	Studies of scalp level connectivity and representative channels in epilepsy. , 2017, , .		0
116	Electromagnetic Field Analysis of Low-Magnitude High-Frequency Vibrator with Multiple Plungers. , 2018, 2018, 1-4.		0
117	Scalp Level Connectivity for Representative Channels in Emotional Status. IFMBE Proceedings, 2019, , 227-231.	0.3	0
118	An Analytical Model for Bandwidth Enhancement of Air-Coupled Unsealed Helmholtz Structural CMUTs. Journal of Sensors, 2019, 2019, 1-16.	1.1	0
119	Brain Rhythm Sequencing and Its Application for EEG-based Emotion Recognition. , 2021, , .		0
120	Initial Study of Emotion Recognition Using Brain Rhythm Sequencing Method. IFMBE Proceedings, 2021, , 231-239.	0.3	0
121	Heart sound de-noising using wavelet and empirical mode decomposition based thresholding methods. , 2018, , .		0
122	Channel Characteristics Analysis of Galvanic Coupling Intra-Body Communication. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2022, 6, 364-372.	3.4	0