

Mingui Sun

List of Publications by Year in descending order

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145
papers

1,848
citations

304743

22
h-index

345221

36
g-index

146
all docs

146
docs citations

146
times ranked

2045
citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Approach to Dining Bowl Reconstruction for Image-Based Food Volume Estimation. <i>Sensors</i> , 2022, 22, 1493.	3.8	8
2	Feasibility of the automatic ingestion monitor (AIM-2) for infant feeding assessment: a pilot study among breast-feeding mothers from Ghana. <i>Public Health Nutrition</i> , 2022, 25, 2897-2907.	2.2	1
3	NDNet: Narrow While Deep Network for Real-Time Semantic Segmentation. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2021, 22, 5508-5519.	8.0	24
4	A hierarchical parallel fusion framework for egocentric ADL recognition based on discernment frame partitioning and belief coarsening. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2021, 12, 1693-1715.	4.9	0
5	An automatic electronic instrument for accurate measurements of food volume and density. <i>Public Health Nutrition</i> , 2021, 24, 1248-1255.	2.2	7
6	Optimal Design of Planar Spiral Coil for Uniform Magnetic Field to Wirelessly Power Position-Free Targets. <i>IEEE Transactions on Magnetics</i> , 2021, 57, 1-9.	2.1	22
7	Food/Non-Food Classification of Real-Life Egocentric Images in Low- and Middle-Income Countries Based on Image Tagging Features. <i>Frontiers in Artificial Intelligence</i> , 2021, 4, 644712.	3.4	5
8	Human-Mimetic Estimation of Food Volume from a Single-View RGB Image Using an AI System. <i>Electronics (Switzerland)</i> , 2021, 10, 1556.	3.1	12
9	Dual-Functional Wireless Power Transfer and Data Communication Design for Micromedical Implants. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2021, 9, 6259-6271.	5.4	7
10	Deep Learning-Based Methodology for Recognition of Fetal Brain Standard Scan Planes in 2D Ultrasound Images. <i>IEEE Access</i> , 2020, 8, 44443-44451.	4.2	25
11	Pressure Ulcer Monitoring Platform—A Prospective, Human Subject Clinical Study to Validate Patient Repositioning Monitoring Device to Prevent Pressure Ulcers. <i>Advances in Wound Care</i> , 2020, 9, 28-33.	5.1	13
12	Standard Plane Identification in Fetal Brain Ultrasound Scans Using a Differential Convolutional Neural Network. <i>IEEE Access</i> , 2020, 8, 83821-83830.	4.2	30
13	Development and Validation of an Objective, Passive Dietary Assessment Method for Estimating Food and Nutrient Intake in Households in Low- and Middle-Income Countries: A Study Protocol. <i>Current Developments in Nutrition</i> , 2020, 4, nzaa020.	0.3	15
14	Estimating Dining Plate Size From an Egocentric Image Sequence Without a Fiducial Marker. <i>Frontiers in Nutrition</i> , 2020, 7, 519444.	3.7	1
15	Reliability and validity of food portion size estimation from images using manual flexible digital virtual meshes. <i>Public Health Nutrition</i> , 2019, 22, 1-7.	2.2	8
16	Image-based food portion size estimation using a smartphone without a fiducial marker. <i>Public Health Nutrition</i> , 2019, 22, 1-13.	2.2	17
17	Automatic food detection in egocentric images using artificial intelligence technology. <i>Public Health Nutrition</i> , 2019, 22, 1-12.	2.2	62
18	Locally Shared Features: An Efficient Alternative to Conditional Random Field for Semantic Segmentation. <i>IEEE Access</i> , 2019, 7, 2263-2272.	4.2	7

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19	A Robust RGB-D SLAM System With Points and Lines for Low Texture Indoor Environments. IEEE Sensors Journal, 2019, 19, 9908-9920.	4.7	43
20	A multisource fusion framework driven by user-defined knowledge for egocentric activity recognition. Eurasip Journal on Advances in Signal Processing, 2019, 2019, 14.	1.7	10
21	Methodology for Objective, Passive, Image- and Sensor-based Assessment of Dietary Intake, Meal-timing, and Food-related Activity in Ghana and Kenya (P13-028-19). Current Developments in Nutrition, 2019, 3, nzz036.P13-028-19.	0.3	2
22	A Hierarchical Deep Fusion Framework for Egocentric Activity Recognition Using a Wearable Hybrid Sensor System. Sensors, 2019, 19, 546.	3.8	12
23	Robust Robot Pose Estimation for Challenging Scenes With an RGB-D Camera. IEEE Sensors Journal, 2019, 19, 2217-2229.	4.7	26
24	Deep learning for classification of normal swallows in adults. Neurocomputing, 2018, 285, 1-9.	5.9	25
25	Study on windage yaw calculation and real-time warning method of Shanxi power grid considering microclimate and micro-terrain factors. IEEJ Transactions on Electrical and Electronic Engineering, 2018, 13, 681-688.	1.4	3
26	A double-helix and cross-patterned solenoid used as a wirelessly powered receiver for medical implants. AIP Advances, 2018, 8, .	1.3	4
27	A miniature implantable coil that can be wrapped around a tubular organ within the human body. AIP Advances, 2018, 8, 056629.	1.3	5
28	A polygonal double-layer coil design for high-efficiency wireless power transfer. AIP Advances, 2018, 8, .	1.3	6
29	Methods and datasets on semantic segmentation: A review. Neurocomputing, 2018, 304, 82-103.	5.9	154
30	Detecting Load Resistance and Mutual Inductance in Series-Parallel Compensated Wireless Power Transfer System Based on Input-Side Measurement. International Journal of Antennas and Propagation, 2018, 2018, 1-6.	1.2	6
31	Position paper on the need for portion-size education and a standardised unit of measurement. Health Promotion Journal of Australia, 2017, 28, 260-263.	1.2	20
32	Triboelectric Nanogenerator Using Microdome-Patterned PDMS as a Wearable Respiratory Energy Harvester. Advanced Materials Technologies, 2017, 2, 1700014.	5.8	38
33	Study of resonant self-charging rats experiment playground based on Witricity technology. International Journal of Applied Electromagnetics and Mechanics, 2017, 53, 409-421.	0.6	5
34	Magnetic shielding structure optimization design for wireless power transmission coil. AIP Advances, 2017, 7, .	1.3	15
35	Position and Angular Misalignment Analysis for Implantable Wireless Power Transfer System Based on Magnetic Resonance. Journal of Medical and Biological Engineering, 2017, 37, 602-611.	1.8	6
36	Simultaneous wireless power transfer and data communication using synchronous pulse-controlled load modulation. Measurement: Journal of the International Measurement Confederation, 2017, 109, 316-325.	5.0	14

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37	Human-robot symbiosis framework on exoskeleton devices. , 2016, , .		2
38	Reuse of WiFi Information for Indoor Monitoring of the Elderly. , 2016, , .		6
39	Visualization of electrical field of electrode using voltage-controlled fluorescence release. Computers in Biology and Medicine, 2016, 75, 38-44.	7.0	2
40	An auxiliary gaze point estimation method based on facial normal. Pattern Analysis and Applications, 2016, 19, 611-620.	4.6	5
41	ARCH: Adaptive recurrent-convolutional hybrid networks for long-term action recognition. Neurocomputing, 2016, 178, 87-102.	5.9	44
42	Design and Analysis of a Shoe-Embedded Power Harvester Based on Magnetic Gear. IEEE Transactions on Magnetics, 2016, 52, 1-4.	2.1	8
43	A matched dual-tree wavelet denoising for tri-axial swallowing vibrations. Biomedical Signal Processing and Control, 2016, 27, 112-121.	5.7	9
44	Mastering human-robot interaction control techniques using Chinese Tai Chi Chuan: Mutual learning, intention detection, impedance adaptation, and force borrowing. , 2015, , .		0
45	Healthcare Engineering Defined: A White Paper. Journal of Healthcare Engineering, 2015, 6, 635-648.	1.9	29
46	An Exploratory Study on a Chest-Worn Computer for Evaluation of Diet, Physical Activity and Lifestyle. Journal of Healthcare Engineering, 2015, 6, 1-22.	1.9	42
47	Fast single image haze removal via local atmospheric light veil estimation. Computers and Electrical Engineering, 2015, 46, 371-383.	4.8	32
48	A simulation study on a single-unit wireless EEG Sensor. , 2015, 2015, .		5
49	Assessing physical performance in free-living older adults with a wearable computer. , 2015, 2015, .		0
50	Saliency-aware food image segmentation for personal dietary assessment using a wearable computer. Measurement Science and Technology, 2015, 26, 025702.	2.6	20
51	A low power, parallel wearable multi-sensor system for human activity evaluation. , 2015, 2015, .		4
52	SIFT-based indoor localization for older adults using wearable camera. , 2015, 2015, .		1
53	Single image dehazing using the change of detail prior. Neurocomputing, 2015, 156, 1-11.	5.9	62
54	A FPGA implementation of JPEG baseline encoder for wearable devices. , 2015, 2015, .		2

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55	Multiview stereo and silhouette fusion via minimizing generalized reprojection error. <i>Image and Vision Computing</i> , 2015, 33, 1-14.	4.5	3
56	An energy-based free boundary asynchronous diffusion model for 3D warping of tissue dynamics. <i>Journal of Statistical Computation and Simulation</i> , 2014, 84, 1280-1296.	1.2	1
57	Obstacle Classification and 3D Measurement in Unstructured Environments Based on ToF Cameras. <i>Sensors</i> , 2014, 14, 10753-10782.	3.8	22
58	A novel binocular vision system for wearable devices. , 2014, 2014, 1-3.		2
59	Cross-Trees for Stereo Matching with Priors. , 2014, , .		1
60	Accuracy of food portion size estimation from digital pictures acquired by a chest-worn camera. <i>Public Health Nutrition</i> , 2014, 17, 1671-1681.	2.2	85
61	Characteristics of skin-electrode impedance for a novel screw electrode. , 2014, 2014, 1-2.		5
62	A fast color image enhancement algorithm based on Max Intensity Channel. <i>Journal of Modern Optics</i> , 2014, 61, 466-477.	1.3	24
63	Design of a Wireless EEG System for Point-of-Care Applications. , 2013, 2013, 78-79.		0
64	Eating Event Detection by Magnetic Proximity Sensing. , 2013, 2013, 15-16.		5
65	Multiresolution Image Analysis for Automatic Quantification of Collagen Gel Contraction. , 2013, , .		0
66	Registration and fusion for ToF camera and 2D camera reading. , 2013, , .		3
67	Batteries Not Included: A Mat-Based Wireless Power Transfer System for Implantable Medical Devices As a Moving Target. <i>IEEE Microwave Magazine</i> , 2013, 14, 63-72.	0.8	37
68	A Novel Mat-Based System for Position-Varying Wireless Power Transfer to Biomedical Implants. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 4774-4779.	2.1	66
69	Rate of Information Transmission in Human Manual Control of an Unstable System. <i>IEEE Transactions on Human-Machine Systems</i> , 2013, 43, 259-263.	3.5	7
70	Lateral and Angular Misalignments Analysis of a New PCB Circular Spiral Resonant Wireless Charger. <i>IEEE Transactions on Magnetics</i> , 2012, 48, 4522-4525.	2.1	86
71	Study and Experimental Verification of a Rectangular Printed-Circuit-Board Wireless Transfer System for Low Power Devices. <i>IEEE Transactions on Magnetics</i> , 2012, 48, 3013-3016.	2.1	16
72	Analytical study and corresponding experiments for a new resonant magnetic charger with circular spiral coils. <i>Journal of Applied Physics</i> , 2012, 111, 07E704.	2.5	5

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73	3D/2D model-to-image registration for quantitative dietary assessment. , 2012, 2012, 95-96.		22
74	Designing a wearable computer for lifestyle evaluation. , 2012, 2012, 93-94.		17
75	Anthropometric measurements from multi-view images. , 2012, , .		4
76	Portable amplifier design for a novel EEG monitor in point-of-care applications. , 2012, 2012, 388-389.		7
77	Stereo Matching with Global Edge Constraint and Occlusion Handling. , 2012, , .		1
78	Imaged based estimation of food volume using circular referents in dietary assessment. Journal of Food Engineering, 2012, 109, 76-86.	5.2	43
79	Analysis of Wireless Energy Transmission for Implantable Device Based on Coupled Magnetic Resonance. IEEE Transactions on Magnetics, 2012, 48, 723-726.	2.1	35
80	Magnetic Hand Tracking for Human-Computer Interface. IEEE Transactions on Magnetics, 2011, 47, 970-973.	2.1	45
81	FEM Simulations and Experiments for the Advanced Witricity Charger With Compound Nano-TiO ₂ Interlayers. IEEE Transactions on Magnetics, 2011, 47, 4449-4452.	2.1	12
82	Blur detection in image sequences recorded by a wearable camera. , 2011, , .		1
83	A multi-scale retinex implementation on FPGA for an outdoor application. , 2011, , .		10
84	A novel resonant inductive magnetic coupling wireless charger with TiO ₂ compound interlayer. Journal of Applied Physics, 2011, 109, 07E502.	2.5	6
85	Automatic video analysis and motion estimation for physical activity classification. , 2010, , .		3
86	Automatic detection of dining plates in digital video. , 2010, , .		1
87	Signal pre-processing method suitable for compressive sensing based on frequency modulation. , 2010, , .		0
88	Study on the Feasibility to Detect Cancer Tumors by Combining Nanotechnology With SQUID. IEEE Transactions on Applied Superconductivity, 2010, 20, 1956-1959.	1.7	1
89	A comparative study between witricity and traditional inductive coupling in wireless energy transmission. , 2010, , .		2
90	Magnetic hand tracking for human-computer interface. , 2010, , .		1

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91	Optimal design of energy transmission system for implantable device base on WiTricity. , 2010, , .		6
92	Finite element analysis and corresponding experiments of resonant energy transmission for wireless transmission devices using witricty. , 2010, , .		4
93	Discrete Prolate Spheroidal Sequences for compressive sensing of EEG signals. , 2010, , .		2
94	The design and realization of a wearable embedded device for dietary and physical activity monitoring. , 2010, , .		3
95	Segmentation for efficient browsing of chronical video recorded by a wearable device. , 2010, , .		4
96	Wireless power delivery for wearable sensors and implants in Body Sensor Networks. , 2010, 2010, 692-5.		19
97	Error analysis of a dimension estimation approach. , 2010, , .		0
98	Wireless energy delivery and data communication for biomedical sensors and implantable devices. , 2009, , .		14
99	In vitro and in vivo studies on wireless powering of medical sensors and implantable devices. , 2009, , .		95
100	Coupling and compensation analysis of transcutaneous Energy Transmission for implantable artificial heart. , 2009, , .		0
101	Wireless power transfer system design for implanted and worn devices. , 2009, , .		10
102	Generation of plasma jet and its application to medical sterilization. , 2009, , .		0
103	Carried Load Measurement Based on Gait Analysis and Human Kinetics. , 2008, , .		2
104	How to Pass Information and Deliver Energy to a Network of Implantable Devices within the Human Body. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 5286-9.	0.5	11
105	A prototype volume conduction platform for implantable devices. , 2007, , .		3
106	Decomposition of MEG signals with sparse representations. , 2007, , .		1
107	Design of a phantom head for the in vitro testing of implantable devices. , 2007, , .		2
108	A wavelet transform based POCS Superresolution algorithm. Journal of Electronics, 2007, 24, 642-648.	0.2	1

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109	Design of the next-generation medical implants with communication energy and ports. Studies in Health Technology and Informatics, 2007, 125, 457-9.	0.3	0
110	Beamspace Magnetoencephalographic Signal Decomposition in Spherical Harmonics Domain. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
111	Spike Separation from EEG/MEG Data Using Morphological Filter and Wavelet Transform. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
112	Optimal Feature Selection for Seizure Detection: A Subspace Based Approach. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
113	Serotonin (5-HT) released by activated white blood cells in a biological fuel cell provide a potential energy source for electricity generation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
114	Data Integration for Medical Information Management. Journal of Signal Processing Systems, 2005, 41, 319-328.	1.0	0
115	3D Multiwavelet-based Motion Residual Compression for Neurosurgical Monitoring Videos. , 2005, , .		0
116	Data communication between brain implants and computer. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2003, 11, 189-192.	4.9	36
117	Solving partial differential equations in real-time using artificial neural network signal processing as an alternative to finite-element analysis. , 2003, , .		1
118	Extraction and Analysis of Early Ictal Activity in Subdural Electroencephalogram. Annals of Biomedical Engineering, 2001, 29, 878-886.	2.5	12
119	EEG source localization: A neural network approach. Neurological Research, 2001, 23, 457-464.	1.3	14
120	Characterization of sleep spindles using higher order statistics and spectra. IEEE Transactions on Biomedical Engineering, 2000, 47, 997-1009.	4.2	46
121	Comparison of Orthogonal Search and Canonical Variate Analysis for the Identification of Neurobiological Systems. Annals of Biomedical Engineering, 1999, 27, 592-606.	2.5	6
122	On divided neural network and its application to source localization in the brain. , 0, , .		0
123	A novel model for source localization on neural substrates. , 0, , .		0
124	An adaptive neural network in wavelet space for time-series prediction. , 0, , .		1
125	Extension of a training set for artificial neural networks and its application to brain source localization. , 0, , .		1
126	Characterization of heart rate dynamics in infants as a probe for neural state and age. , 0, , .		2

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127	A comparative study of two biorthogonal wavelet transforms in time series prediction. , 0, , .		12
128	A hierarchical decision module based on multiple neural networks. , 0, , .		3
129	Analyzing EEG scalp current density using the Hjorth estimator. , 0, , .		0
130	Model order selection of a fuzzy logic system. , 0, , .		1
131	A lossless compression algorithm for multichannel EEG. , 0, , .		8
132	Application of the lifting scheme to efficient transmission of physiological data for remote display. , 0, , .		1
133	Analysis of heart rate changes associated with ictal activity. , 0, , .		0
134	Fast Internet transmission of physiological signals using the lifting scheme and SPIHT coding algorithm. , 0, , .		1
135	Variable sampling of large-array EEG and MEG. , 0, , .		0
136	A two-step method for compression of medical monitoring video. , 0, , .		2
137	Switching modulation for wireless transmission of biological waveforms using a cellphone. , 0, , .		1
138	POCS superresolution image reconstruction using wavelet transform. , 0, , .		1
139	Biofuel cells as a possible power source for implantable electronic devices. , 0, , .		4
140	A multimedia system for remote neurosurgical monitoring. , 0, , .		3
141	Multi-channel video for patient monitoring based on dct compositing. , 0, , .		1
142	Computer Simulation of Volume Conduction Based Data Communication Channel for Neuroprosthetic Devices. , 0, , .		1
143	Signal Multiplexing and Modulation for Volume Conduction Communication. , 0, , .		1
144	Object-Based Video Representation for Remote Patient Monitoring. , 0, , .		0

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145	A Novel Architecture for the Design of Prosthetic and Robotic Hands. , 0, , .		2