Guanghua Xu

List of Publications by Year
in descending order

135	1,668	361413	395702
papers	citations	20	33
		h-index	g-index

135	135	135	1439
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Order spectrogram visualization for rolling bearing fault detection under speed variation conditions. Mechanical Systems and Signal Processing, 2019, 122, 580-596.	8.0	78
2	Learning deep representation of imbalanced SCADA data for fault detection of wind turbines. Measurement: Journal of the International Measurement Confederation, 2019, 139, 370-379.	5.0	73
3	Numerical Simulation of Nonlinear Lamb Waves Used in a Thin Plate for Detecting Buried Micro-Cracks. Sensors, 2014, 14, 8528-8546.	3.8	72
4	Effects of Mental Load and Fatigue on Steady-State Evoked Potential Based Brain Computer Interface Tasks: A Comparison of Periodic Flickering and Motion-Reversal Based Visual Attention. PLoS ONE, 2016, 11, e0163426.	2.5	70
5	Highly Interactive Brain–Computer Interface Based on Flicker-Free Steady-State Motion Visual Evoked Potential. Scientific Reports, 2018, 8, 5835.	3.3	62
6	Data Augmentation for Motor Imagery Signal Classification Based on a Hybrid Neural Network. Sensors, 2020, 20, 4485.	3.8	61
7	An Attention-Controlled Hand Exoskeleton for the Rehabilitation of Finger Extension and Flexion Using a Rigid-Soft Combined Mechanism. Frontiers in Neurorobotics, 2019, 13, 34.	2.8	51
8	A review: Motor rehabilitation after stroke with control based on human intent. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2018, 232, 344-360.	1.8	49
9	Four Novel Motion Paradigms Based on Steady-State Motion Visual Evoked Potential. IEEE Transactions on Biomedical Engineering, 2018, 65, 1696-1704.	4.2	48
10	A spike detection method in EEG based on improved morphological filter. Computers in Biology and Medicine, 2007, 37, 1647-1652.	7.0	41
11	Class-Imbalance Adversarial Transfer Learning Network for Cross-Domain Fault Diagnosis With Imbalanced Data. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	4.7	38
12	Application of Transfer Learning in EEG Decoding Based on Brain-Computer Interfaces: A Review. Sensors, 2020, 20, 6321.	3.8	37
13	Steady-State Motion Visual Evoked Potential (SSMVEP) Based on Equal Luminance Colored Enhancement. PLoS ONE, 2017, 12, e0169642.	2.5	35
14	Pre-Impact Fall Detection Based on a Modified Zero Moment Point Criterion Using Data From Kinect Sensors. IEEE Sensors Journal, 2018, 18, 5522-5531.	4.7	31
15	Attention-Controlled Assistive Wrist Rehabilitation Using a Low-Cost EEG Sensor. IEEE Sensors Journal, 2019, 19, 6497-6507.	4.7	28
16	The Role of Visual Noise in Influencing Mental Load and Fatigue in a Steady-State Motion Visual Evoked Potential-Based Brain-Computer Interface. Sensors, 2017, 17, 1873.	3.8	27
17	Using Corticomuscular Coherence to Reflect Function Recovery of Paretic Upper Limb after Stroke: A Case Study. Frontiers in Neurology, 2017, 8, 728.	2.4	27
18	Assessment of Human Visual Acuity Using Visual Evoked Potential: A Review. Sensors, 2020, 20, 5542.	3.8	26

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19	The Study of Object-Oriented Motor Imagery Based on EEG Suppression. PLoS ONE, 2015, 10, e0144256.	2.5	25
20	Anti-fatigue Performance in SSVEP-Based Visual Acuity Assessment: A Comparison of Six Stimulus Paradigms. Frontiers in Human Neuroscience, 2020, 14, 301.	2.0	25
21	Self-supervised bi-classifier adversarial transfer network for cross-domain fault diagnosis of rotating machinery. ISA Transactions, 2022, 130, 433-448.	5.7	24
22	A Performance Evaluation of Two Bispectrum Analysis Methods Applied to Electrical Current Signals for Monitoring Induction Motor-Driven Systems. Energies, 2019, 12, 1438.	3.1	23
23	Addition of visual noise boosts evoked potential-based brain-computer interface. Scientific Reports, 2014, 4, 4953.	3.3	20
24	Deep Residual Network for Identifying Bearing Fault Location and Fault Severity Concurrently. IEEE Access, 2020, 8, 168026-168035.	4.2	20
25	Enhancing detection of steady-state visual evoked potentials using channel ensemble method. Journal of Neural Engineering, 2021, 18, 046008.	3.5	19
26	Application of Wavelet Packet Entropy Flow Manifold Learning in Bearing Factory Inspection Using the Ultrasonic Technique. Sensors, 2015, 15, 341-351.	3.8	18
27	Minimum Circumscribed Circle and Maximum Inscribed Circle of Roundness Deviation Evaluation With Intersecting Chord Method. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 2787-2796.	4.7	18
28	Human pose estimation method based on single depth image. IET Computer Vision, 2018, 12, 919-924.	2.0	18
29	Objective and quantitative assessment of interocular suppression in strabismic amblyopia based on steady-state motion visual evoked potentials. Vision Research, 2019, 164, 44-52.	1.4	16
30	A Novel Improved Local Binary Pattern and Its Application to the Fault Diagnosis of Diesel Engine. Shock and Vibration, 2020, 2020, 1-15.	0.6	16
31	Detection of weak transient signals based on unsupervised learning for bearing fault diagnosis. Neurocomputing, 2018, 314, 445-457.	5.9	15
32	Three-Dimensional Pose Estimation of Infants Lying Supine Using Data From a Kinect Sensor With Low Training Cost. IEEE Sensors Journal, 2021, 21, 6904-6913.	4.7	15
33	A quantitative method for evaluating numerical simulation accuracy of time-transient Lamb wave propagation with its applications to selecting appropriate element size and time step. Ultrasonics, 2016, 64, 25-42.	3.9	14
34	Objective and quantitative assessment of visual acuity and contrast sensitivity based on steady-state motion visual evoked potentials using concentric-ring paradigm. Documenta Ophthalmologica, 2019, 139, 123-136.	2.2	14
35	Attention Enhancement for Exoskeleton-Assisted Hand Rehabilitation Using Fingertip Haptic Stimulation. Frontiers in Robotics and AI, 2021, 8, 602091.	3.2	14
36	RGB-D Videos-Based Early Prediction of Infant Cerebral Palsy via General Movements Complexity. IEEE Access, 2021, 9, 42314-42324.	4.2	14

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37	Brain response to luminance-based and motion-based stimulation using inter-modulation frequencies. PLoS ONE, 2017, 12, e0188073.	2.5	14
38	A motion rehabilitation self-training and evaluation system using Kinect. , 2016, , .		13
39	Second harmonic reflection and transmission from primary S0 mode Lamb wave interacting with a localized microscale damage in a plate: A numerical perspective. Ultrasonics, 2018, 82, 57-71.	3.9	13
40	Multiscale noise suppression and feature frequency extraction in SSVEP based on underdamped second-order stochastic resonance. Journal of Neural Engineering, 2019, 16, 036032.	3.5	13
41	Human 3D pose estimation in a lying position by RGB-D images for medical diagnosis and rehabilitation. , 2020, 2020, 5802-5805.		13
42	Instance Transfer Subject-Dependent Strategy for Motor Imagery Signal Classification Using Deep Convolutional Neural Networks. Computational and Mathematical Methods in Medicine, 2020, 2020, 1-10.	1.3	13
43	Comparison of the performance of six stimulus paradigms in visual acuity assessment based on steady-state visual evoked potentials. Documenta Ophthalmologica, 2020, 141, 237-251.	2.2	13
44	Evaluation of Pseudo-Haptic Interactions with Soft Objects in Virtual Environments. PLoS ONE, 2016, 11, e0157681.	2.5	13
45	Cross-subject spatial filter transfer method for SSVEP-EEG feature recognition. Journal of Neural Engineering, 2022, 19, 036008.	3.5	13
46	Quantifying mode mixing and leakage in multivariate empirical mode decomposition and application in motor imageryâ€"based brain-computer interface system. Medical and Biological Engineering and Computing, 2019, 57, 1297-1311.	2.8	12
47	Evaluation of stiffness feedback for hard nodule identification on a phantom silicone model. PLoS ONE, 2017, 12, e0172703.	2.5	12
48	Automatically Measure the Quality of Infantsâ€™ Spontaneous Movement via Videos to Predict the Risk of Cerebral Palsy. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	12
49	The Recovery of Weak Impulsive Signals Based on Stochastic Resonance and Moving Least Squares Fitting. Sensors, 2014, 14, 13692-13707.	3.8	11
50	A tactile sensing and feedback system for tumor localization. , 2016, , .		11
51	Steady-State Motion Visual Evoked Potential (SSMVEP) Enhancement Method Based on Time-Frequency Image Fusion. Computational Intelligence and Neuroscience, 2019, 2019, 1-14.	1.7	11
52	Can a highly accurate multi-class SSMVEP BCI induce sensory-motor rhythm in the sensorimotor area?. Journal of Neural Engineering, 2021, 18, 035001.	3.5	11
53	Tacholess order-tracking approach for wind turbine gearbox fault detection. Frontiers of Mechanical Engineering, 2017, 12, 427-439.	4.3	10
54	A 3D-printed soft hand exoskeleton with finger abduction assistance. , 2019, , .		10

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55	A General Arthropod Joint Model and its Applications in Modeling Human Robotic Joints. IEEE Access, 2021, 9, 7814-7822.	4.2	10
56	Fusing Topology Optimization and Pseudo-Rigid-Body Method For the Development of a Finger Exoskeleton. IEEE Robotics and Automation Letters, 2022, 7, 1721-1728.	5.1	10
57	Weak Feature Extraction and Strong Noise Suppression for SSVEP-EEG Based on Chaotic Detection Technology. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 862-871.	4.9	10
58	SSVEP-EEG Denoising via Image Filtering Methods. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1634-1643.	4.9	10
59	Design of an Underactuated Prosthetic Hand with Flexible Multi-Joint Fingers and EEG-Based Control. , 2018, , .		9
60	Sparse Envelope Spectra for Feature Extraction of Bearing Faults Based on NMF. Applied Sciences (Switzerland), 2019, 9, 755.	2.5	9
61	Design and performance characterization of a soft robot hand with fingertip haptic feedback for teleoperation. Advanced Robotics, 2020, 34, 1491-1505.	1.8	9
62	A soft robotic glove for hand rehabilitation training controlled by movements of the healthy hand. , 2020, , .		9
63	Trajectory Planning of Upper Limb Rehabilitation Robot Based on Human Pose Estimation. , 2020, , .		9
64	A wearable fiber-optic sensor for monitoring human elbow and wrist joint motion. Advanced Robotics, 2021, 35, 400-412.	1.8	8
65	On-Machine Measurement of Wheel Tread Profile With the 1-D Laser Sensor. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	8
66	Rolling bearing quality evaluation based on a morphological filter and a Kolmogorov complexity measure. International Journal of Precision Engineering and Manufacturing, 2015, 16, 459-464.	2.2	7
67	Enhanced Plasticity of Human Evoked Potentials by Visual Noise During the Intervention of Steady-State Stimulation Based Brain-Computer Interface. Frontiers in Neurorobotics, 2018, 12, 82.	2.8	7
68	Learning Deep Representation for Blades Icing Fault Detection of Wind Turbines. , 2018, , .		7
69	Real-time, precise, rapid and objective visual acuity assessment by self-adaptive step SSVEPs. Journal of Neural Engineering, 2021, 18, 046047.	3.5	7
70	Waveform feature extraction and signal recovery in single-channel TVEP based on Fitzhughâ€"Nagumo stochastic resonance. Journal of Neural Engineering, 2021, 18, 056031.	3.5	7
71	Supine Infant Pose Estimation via Single Depth Image. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	4.7	7
72	Fusing Frontal and Occipital EEG Features to Detect â€œBrain Switchâ€•by Utilizing Convolutional Neural Network. IEEE Access, 2019, 7, 82817-82825.	4.2	6

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73	Brainâ€"computer interface method based on light-flashing and motion hybrid coding. Cognitive Neurodynamics, 2020, 14, 697-708.	4.0	6
74	Human action recognition based on kinematic similarity in real time. PLoS ONE, 2017, 12, e0185719.	2.5	6
75	Research on fault identification for complex system based on generalized linear canonical correlation analysis. , 2012, , .		5
76	An image dimensionality reduction method for rolling bearing fault diagnosis based on singular value decomposition. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 1830-1845.	2.1	5
77	Classification of single-trial motor imagery EEG by complexity regularization. Neural Computing and Applications, 2019, 31, 1959-1965.	5.6	5
78	Threshold Determination Criterion in Steady-State Visual Evoked Potential-Based Acuity Assessment: A Comparison of Four Common Methods. IEEE Access, 2020, 8, 188844-188852.	4.2	5
79	Enhancing Performance of SSVEP-Based Visual Acuity via Spatial Filtering. Frontiers in Neuroscience, 2021, 15, 716051.	2.8	5
80	Multi-scale noise transfer and feature frequency detection in SSVEP based on FitzHughâ€"Nagumo neuron system. Journal of Neural Engineering, 2021, 18, 056054.	3.5	5
81	Evaluation of Synergy-Based Hand Gesture Recognition Method Against Force Variation for Robust Myoelectric Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 2345-2354.	4.9	5
82	SSVEP-EEG Feature Enhancement Method Using an Image Sharpening Filter. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 115-123.	4.9	5
83	Design and Characterization of a Rolling-Contact Involute Joint and Its Applications in Finger Exoskeletons. Machines, 2022, 10, 301.	2.2	5
84	Ultrasonic Guided Wave Phased Array Focusing Technology and Its Application to Defrosting Performance Improvement of Air-Source Heat Pumps. Energies, 2019, 12, 3117.	3.1	4
85	Performance Evaluation of Visual Noise Imposed Stochastic Resonance Effect on Brain-Computer Interface Application: A Comparison Between Motion-Reversing Simple Ring and Complex Checkerboard Patterns. Frontiers in Neuroscience, 2019, 13, 1192.	2.8	4
86	Impulse Feature Extraction of Bearing Faults Based on Convolutive Nonnegative Matrix Factorization. IEEE Access, 2020, 8, 88617-88632.	4.2	4
87	Improved online decomposition of non-stationary electromyogram via signal enhancement using a neuron resonance model: a simulation study. Journal of Neural Engineering, 2022, 19, 026030.	3.5	4
88	A Light Spot Humanoid Motion Paradigm Modulated by the Change of Brightness to Recognize the Stride Motion Frequency. Frontiers in Human Neuroscience, 2018, 12, 377.	2.0	3
89	A Three-Phase Current Tacholess Envelope Order Analysis Method for Feature Extraction of Planetary Gearbox under Variable Speed Conditions. Sensors, 2021, 21, 5714.	3.8	3
90	Azure Kinect Calibration and Parameter Recommendation in Different Scenarios. IEEE Sensors Journal, 2022, 22, 9733-9742.	4.7	3

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91	Running state detection and performance evaluation method for feed mechanism of numerical control machine. , 2017, , .		2
92	Comparison of Visual Cortex Functional Connectivity Patterns Based on Steady-state Monochromatic Flicker and Oscillating Checkerboard Visual Stimulus. , 2018, , .		2
93	A New Brain-Computer Interface Paradigm based on Steady-State Visual Evoked Potential of Illusory Pattern Motion Perception*. , 2019, , .		2
94	Fuzzy-adaptive Impedance Control of Upper Limb Rehabilitation Robot Based on sEMG*. , 2019, , .		2
95	Motion assistance and resistance using pseudo-haptic feedback for upper-limb rehabilitation. , 2019, , .		2
96	Performance Evaluation of a "Switch-To-Target" Based Asynchronous SSVEP BCI Paradigm. , 2019, , .		2
97	Two Frequencies Sequential Coding for the ASSR-based Brain-Computer Interface Application. , 2019, , .		2
98	An intensity-modulated fiber optic pressure sensor for hand-exoskeleton interactive force detection. , 2019, , .		2
99	Quantitative and objective diagnosis of color vision deficiencies based on steady-state visual evoked potentials. International Ophthalmology, 2021, 41, 587-598.	1.4	2
100	An Asynchronous Detection Algorithm for SSVEP-Based BCI Using Gradient Boosting Decision Tree. , 2020, , .		2
101	Assessing the Effect of the Refresh Rate of a Device on Various Motion Stimulation Frequencies Based on Steady-State Motion Visual Evoked Potentials. Frontiers in Neuroscience, 2021, 15, 757679.	2.8	2
102	Feature Extraction Methods for Fault Classification of Rolling Element Bearing Based on Nonlinear Dimensionality Reduction and SVMs. , 2009, , .		1
103	Gaussian Bayesian network structure learning strategies based on canonical correlation analysis. , 2012, , .		1
104	Recognition of SSMVEP signals based on multi-channel integrated GT2$\circ$ statistic method. , 2017, , .		1
105	Research on the Weak Signal Detection of Bearing Fault Based on Duffing Oscillator. , 2018, , .		1
106	Improved Park's Vector Method and its Application in Planetary Gearbox Fault Diagnosis. , 2018, , .		1
107	Asynchronous eye-tracking-actuated switch for steady-state visual evoked potential based brain-computer interface applications*. , 2019, , .		1
108	A Hybrid BCI Approach to Detect Brain Switch in Action Observation by Utilizing Convolution Neural Network. , 2019, , .		1

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109	Mid-Air Gestures for Multi-Fingered Virtual Assembly System with Leap Motion. , 2019, , .		1
110	FPGA Implementation of Visual Noise Optimized Online Steady-State Motion Visual Evoked Potential BCI System*. , 2020, , .		1
111	Auditory Noise Leads to Increased Visual Brain-Computer Interface Performance: A Cross-Modal Study. Frontiers in Neuroscience, 2020, 14, 590963.	2.8	1
112	Enhancement of capability for motor imagery using vestibular imbalance stimulation during brain computer interface. Journal of Neural Engineering, 2021, 18, .	3.5	1
113	A novel motion coupling coding method for brain-computer interfaces. Biomedizinische Technik, 2020, 65, 531-541.	0.8	1
114	Using Phase Synchronization to Improve the Performance of Spatial Filter during Motor Imagery EEG Classification. , 2021, , .		1
115	Real-time Multiple-Channel Shoulder EMG Processing for a Rehabilitative Upper-limb Exoskeleton Motion Control Using ANN Machine Learning. , 2021, , .		1
116	Improved Real-time EMG Decomposition via Signal Enhancement Using Fitzhughâ€"Nagumo Model. , 2021, , .		1
117	Grinding process supervision via information distance measureâ€. International Journal of Production Research, 1988, 26, 1657-1664.	7.5	0
118	Research on Bayesian Network Structure Score Function. , 2010, , .		0
119	A dynamic memory model for mechanical fault diagnosis using one-class support vector machine. , 2012, , .		0
120	Feature extraction method of mechanical impulse based on nonlinear manifold learning. , 2012, , .		0
121	Multi-scale Lempel-Ziv complexity analysis of brain states. , 2016, , .		0
122	Lubrication Condition Monitoring and Evaluation of Rolling Bearing Based on Acoustic Emission. , 2018, , .		0
123	Pose Estimation Technique of Scattered Pistons Based on CAD Model and Global Feature. , 2019, , .		0
124	symmetric Multifractal Detrended Cross-Correlation Analysis of EEG and sEMG in The Processes of Myodynamia Changes. , 2019, , .		0
125	Condition Monitoring Method of Mechanical Equipment Based on Data Boundary Morphology. , 2019, , .		0
126	A Novel Motion-Onset N200P300 Brain-Computer Interface Paradigm*. , 2020, , .		0

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127	Attention Enhancement and Motion Assistance for Virtual Reality-Mediated Upper-Limb Rehabilitation. IEEE Transactions on Medical Robotics and Bionics, 2020, 2, 565-568.	3.2	0
128	Asynchronous steady-state visual evoked potential brain-computer interface application: True and false positive rate comparison between with and without eye-tracking switch paradigms. , 2021, , .		0
129	Objective Dynamic Visual Acuity Assessment Method Based on Steady-State Visual Evoked Potentials with Smooth-Pursuit Eye Movements Recording. Journal of Vision, 2021, 21, 2452.	0.3	0
130	Difference analysis of visual brain response between natural light and traditional LED based on steady-state visual evoked potential (SSVEP) paradigm stimulation. Journal of Vision, 2021, 21, 2564.	0.3	0
131	An Objective and Sensitive Visual Acuity Assessment Method for Preverbal and Infantile Children Based on Steady-State Motion Visual Evoked Potentials. Journal of Vision, 2019, 19, 116a.	0.3	0
132	An Optic Disc Localization Method Based on Optic Disc Appearance Characteristics and Blood Vessel Structure. , 2020, , .		0
133	A multi-source co-frequency stimulus method for electroencephalogram (EEG) enhancement. Biomedizinische Technik, 2020, 65, 683-692.	0.8	0
134	Effects of Stimulus Frequency on Steady-State Visual Evoked Potential-Based Brain-Computer Interfaces. , 2021, , .		0
135	Does Oblique Effect Affect SSVEP-Based Visual Acuity Assessment?. Frontiers in Neuroscience, 2021, 15, 784888.	2.8	0