

# Guanghua Xu

## List of Publications by Year in descending order

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135  
papers

1,668  
citations

361413  
20  
h-index

395702  
33  
g-index

135  
all docs

135  
docs citations

135  
times ranked

1439  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	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
4	Self-supervised bi-classifier adversarial transfer network for cross-domain fault diagnosis of rotating machinery. ISA Transactions, 2022, 130, 433-448.	5.7	24
5	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
6	Azure Kinect Calibration and Parameter Recommendation in Different Scenarios. IEEE Sensors Journal, 2022, 22, 9733-9742.	4.7	3
7	Design and Characterization of a Rolling-Contact Involute Joint and Its Applications in Finger Exoskeletons. Machines, 2022, 10, 301.	2.2	5
8	Cross-subject spatial filter transfer method for SSVEP-EEG feature recognition. Journal of Neural Engineering, 2022, 19, 036008.	3.5	13
9	Supine Infant Pose Estimation via Single Depth Image. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	4.7	7
10	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
11	A wearable fiber-optic sensor for monitoring human elbow and wrist joint motion. Advanced Robotics, 2021, 35, 400-412.	1.8	8
12	Quantitative and objective diagnosis of color vision deficiencies based on steady-state visual evoked potentials. International Ophthalmology, 2021, 41, 587-598.	1.4	2
13	A General Arthropod Joint Model and its Applications in Modeling Human Robotic Joints. IEEE Access, 2021, 9, 7814-7822.	4.2	10
14	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
15	SSVEP-EEG Denoising via Image Filtering Methods. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1634-1643.	4.9	10
16	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
17	Enhancing detection of steady-state visual evoked potentials using channel ensemble method. Journal of Neural Engineering, 2021, 18, 046008.	3.5	19
18	Real-time, precise, rapid and objective visual acuity assessment by self-adaptive step SSVEPs. Journal of Neural Engineering, 2021, 18, 046047.	3.5	7

#	ARTICLE	IF	CITATIONS
19	Attention Enhancement for Exoskeleton-Assisted Hand Rehabilitation Using Fingertip Haptic Stimulation. <i>Frontiers in Robotics and AI</i> , 2021, 8, 602091.	3.2	14
20	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
21	A Three-Phase Current Tachless Envelope Order Analysis Method for Feature Extraction of Planetary Gearbox under Variable Speed Conditions. <i>Sensors</i> , 2021, 21, 5714.	3.8	3
22	Enhancing Performance of SSVEP-Based Visual Acuity via Spatial Filtering. <i>Frontiers in Neuroscience</i> , 2021, 15, 716051.	2.8	5
23	Objective Dynamic Visual Acuity Assessment Method Based on Steady-State Visual Evoked Potentials with Smooth-Pursuit Eye Movements Recording. <i>Journal of Vision</i> , 2021, 21, 2452.	0.3	0
24	Waveform feature extraction and signal recovery in single-channel TVEP based on Fitzhughâ€Nagumo stochastic resonance. <i>Journal of Neural Engineering</i> , 2021, 18, 056031.	3.5	7
25	Enhancement of capability for motor imagery using vestibular imbalance stimulation during brain computer interface. <i>Journal of Neural Engineering</i> , 2021, 18, .	3.5	1
26	Difference analysis of visual brain response between natural light and traditional LED based on steady-state visual evoked potential (SSVEP) paradigm stimulation. <i>Journal of Vision</i> , 2021, 21, 2564.	0.3	0
27	Multi-scale noise transfer and feature frequency detection in SSVEP based on FitzHughâ€Nagumo neuron system. <i>Journal of Neural Engineering</i> , 2021, 18, 056054.	3.5	5
28	RGB-D Videos-Based Early Prediction of Infant Cerebral Palsy via General Movements Complexity. <i>IEEE Access</i> , 2021, 9, 42314-42324.	4.2	14
29	On-Machine Measurement of Wheel Tread Profile With the 1-D Laser Sensor. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-11.	4.7	8
30	Evaluation of Synergy-Based Hand Gesture Recognition Method Against Force Variation for Robust Myoelectric Control. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021, 29, 2345-2354.	4.9	5
31	Automatically Measure the Quality of Infantsâ€™ Spontaneous Movement via Videos to Predict the Risk of Cerebral Palsy. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-11.	4.7	12
32	Using Phase Synchronization to Improve the Performance of Spatial Filter during Motor Imagery EEG Classification. , 2021, , .		1
33	Effects of Stimulus Frequency on Steady-State Visual Evoked Potential-Based Brain-Computer Interfaces. , 2021, , .		0
34	Real-time Multiple-Channel Shoulder EMG Processing for a Rehabilitative Upper-limb Exoskeleton Motion Control Using ANN Machine Learning. , 2021, , .		1
35	Assessing the Effect of the Refresh Rate of a Device on Various Motion Stimulation Frequencies Based on Steady-State Motion Visual Evoked Potentials. <i>Frontiers in Neuroscience</i> , 2021, 15, 757679.	2.8	2
36	Does Oblique Effect Affect SSVEP-Based Visual Acuity Assessment?. <i>Frontiers in Neuroscience</i> , 2021, 15, 784888.	2.8	0

#	ARTICLE	IF	CITATIONS
37	Improved Real-time EMG Decomposition via Signal Enhancement Using Fitzhugh-Nagumo Model. , 2021, , .		1
38	Human 3D pose estimation in a lying position by RGB-D images for medical diagnosis and rehabilitation. , 2020, 2020, 5802-5805.		13
39	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
40	Design and performance characterization of a soft robot hand with fingertip haptic feedback for teleoperation. Advanced Robotics, 2020, 34, 1491-1505.	1.8	9
41	Deep Residual Network for Identifying Bearing Fault Location and Fault Severity Concurrently. IEEE Access, 2020, 8, 168026-168035.	4.2	20
42	Impulse Feature Extraction of Bearing Faults Based on Convolutional Nonnegative Matrix Factorization. IEEE Access, 2020, 8, 88617-88632.	4.2	4
43	FPGA Implementation of Visual Noise Optimized Online Steady-State Motion Visual Evoked Potential BCI System*. , 2020, , .		1
44	A Novel Motion-Onset N200P300 Brain-Computer Interface Paradigm*. , 2020, , .		0
45	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
46	A soft robotic glove for hand rehabilitation training controlled by movements of the healthy hand. , 2020, , .		9
47	Trajectory Planning of Upper Limb Rehabilitation Robot Based on Human Pose Estimation. , 2020, , .		9
48	Brain-computer interface method based on light-flashing and motion hybrid coding. Cognitive Neurodynamics, 2020, 14, 697-708.	4.0	6
49	Assessment of Human Visual Acuity Using Visual Evoked Potential: A Review. Sensors, 2020, 20, 5542.	3.8	26
50	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
51	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
52	Data Augmentation for Motor Imagery Signal Classification Based on a Hybrid Neural Network. Sensors, 2020, 20, 4485.	3.8	61
53	Auditory Noise Leads to Increased Visual Brain-Computer Interface Performance: A Cross-Modal Study. Frontiers in Neuroscience, 2020, 14, 590963.	2.8	1
54	Application of Transfer Learning in EEG Decoding Based on Brain-Computer Interfaces: A Review. Sensors, 2020, 20, 6321.	3.8	37

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55	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
56	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
57	A novel motion coupling coding method for brain-computer interfaces. Biomedizinische Technik, 2020, 65, 531-541.	0.8	1
58	An Asynchronous Detection Algorithm for SSVEP-Based BCI Using Gradient Boosting Decision Tree. , 2020, , .		2
59	An Optic Disc Localization Method Based on Optic Disc Appearance Characteristics and Blood Vessel Structure. , 2020, , .		0
60	A multi-source co-frequency stimulus method for electroencephalogram (EEG) enhancement. Biomedizinische Technik, 2020, 65, 683-692.	0.8	0
61	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
62	A 3D-printed soft hand exoskeleton with finger abduction assistance. , 2019, , .		10
63	Pose Estimation Technique of Scattered Pistons Based on CAD Model and Global Feature. , 2019, , .		0
64	Fusing Frontal and Occipital EEG Features to Detect "Brain Switch" by Utilizing Convolutional Neural Network. IEEE Access, 2019, 7, 82817-82825.	4.2	6
65	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
66	A New Brain-Computer Interface Paradigm based on Steady-State Visual Evoked Potential of Illusory Pattern Motion Perception*. , 2019, , .		2
67	Asynchronous eye-tracking-actuated switch for steady-state visual evoked potential based brain-computer interface applications*. , 2019, , .		1
68	Fuzzy-adaptive Impedance Control of Upper Limb Rehabilitation Robot Based on sEMC*. , 2019, , .		2
69	Motion assistance and resistance using pseudo-haptic feedback for upper-limb rehabilitation. , 2019, , .		2
70	Performance Evaluation of a "Switch-To-Target" Based Asynchronous SSVEP BCI Paradigm. , 2019, , .		2
71	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
72	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

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73	Steady-State Motion Visual Evoked Potential (SSMVEP) Enhancement Method Based on Time-Frequency Image Fusion. <i>Computational Intelligence and Neuroscience</i> , 2019, 2019, 1-14.	1.7	11
74	An Attention-Controlled Hand Exoskeleton for the Rehabilitation of Finger Extension and Flexion Using a Rigid-Soft Combined Mechanism. <i>Frontiers in Neurorobotics</i> , 2019, 13, 34.	2.8	51
75	A Performance Evaluation of Two Bispectrum Analysis Methods Applied to Electrical Current Signals for Monitoring Induction Motor-Driven Systems. <i>Energies</i> , 2019, 12, 1438.	3.1	23
76	Attention-Controlled Assistive Wrist Rehabilitation Using a Low-Cost EEG Sensor. <i>IEEE Sensors Journal</i> , 2019, 19, 6497-6507.	4.7	28
77	Sparse Envelope Spectra for Feature Extraction of Bearing Faults Based on NMF. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 755.	2.5	9
78	Learning deep representation of imbalanced SCADA data for fault detection of wind turbines. <i>Measurement: Journal of the International Measurement Confederation</i> , 2019, 139, 370-379.	5.0	73
79	Multiscale noise suppression and feature frequency extraction in SSVEP based on underdamped second-order stochastic resonance. <i>Journal of Neural Engineering</i> , 2019, 16, 036032.	3.5	13
80	Quantifying mode mixing and leakage in multivariate empirical mode decomposition and application in motor imagery-based brain-computer interface system. <i>Medical and Biological Engineering and Computing</i> , 2019, 57, 1297-1311.	2.8	12
81	symmetric Multifractal Detrended Cross-Correlation Analysis of EEG and sEMG in The Processes of Myodynamia Changes. , 2019, , .		0
82	A Hybrid BCI Approach to Detect Brain Switch in Action Observation by Utilizing Convolution Neural Network. , 2019, , .		1
83	Mid-Air Gestures for Multi-Fingered Virtual Assembly System with Leap Motion. , 2019, , .		1
84	Condition Monitoring Method of Mechanical Equipment Based on Data Boundary Morphology. , 2019, , .		0
85	Two Frequencies Sequential Coding for the ASSR-based Brain-Computer Interface Application. , 2019, , .		2
86	An intensity-modulated fiber optic pressure sensor for hand-exoskeleton interactive force detection. , 2019, , .		2
87	Order spectrogram visualization for rolling bearing fault detection under speed variation conditions. <i>Mechanical Systems and Signal Processing</i> , 2019, 122, 580-596.	8.0	78
88	Classification of single-trial motor imagery EEG by complexity regularization. <i>Neural Computing and Applications</i> , 2019, 31, 1959-1965.	5.6	5
89	An Objective and Sensitive Visual Acuity Assessment Method for Preverbal and Infantile Children Based on Steady-State Motion Visual Evoked Potentials. <i>Journal of Vision</i> , 2019, 19, 116a.	0.3	0
90	Four Novel Motion Paradigms Based on Steady-State Motion Visual Evoked Potential. <i>IEEE Transactions on Biomedical Engineering</i> , 2018, 65, 1696-1704.	4.2	48

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91	Highly Interactive Brain-Computer Interface Based on Flicker-Free Steady-State Motion Visual Evoked Potential. <i>Scientific Reports</i> , 2018, 8, 5835.	3.3	62
92	A review: Motor rehabilitation after stroke with control based on human intent. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2018, 232, 344-360.	1.8	49
93	Second harmonic reflection and transmission from primary S0 mode Lamb wave interacting with a localized microscale damage in a plate: A numerical perspective. <i>Ultrasonics</i> , 2018, 82, 57-71.	3.9	13
94	Design of an Underactuated Prosthetic Hand with Flexible Multi-Joint Fingers and EEG-Based Control. , 2018, , .		9
95	Research on the Weak Signal Detection of Bearing Fault Based on Duffing Oscillator. , 2018, , .		1
96	Enhanced Plasticity of Human Evoked Potentials by Visual Noise During the Intervention of Steady-State Stimulation Based Brain-Computer Interface. <i>Frontiers in Neurorobotics</i> , 2018, 12, 82.	2.8	7
97	A Light Spot Humanoid Motion Paradigm Modulated by the Change of Brightness to Recognize the Stride Motion Frequency. <i>Frontiers in Human Neuroscience</i> , 2018, 12, 377.	2.0	3
98	Improved Park's Vector Method and its Application in Planetary Gearbox Fault Diagnosis. , 2018, , .		1
99	Lubrication Condition Monitoring and Evaluation of Rolling Bearing Based on Acoustic Emission. , 2018, , .		0
100	Comparison of Visual Cortex Functional Connectivity Patterns Based on Steady-state Monochromatic Flicker and Oscillating Checkerboard Visual Stimulus. , 2018, , .		2
101	Learning Deep Representation for Blades Icing Fault Detection of Wind Turbines. , 2018, , .		7
102	Pre-Impact Fall Detection Based on a Modified Zero Moment Point Criterion Using Data From Kinect Sensors. <i>IEEE Sensors Journal</i> , 2018, 18, 5522-5531.	4.7	31
103	Human pose estimation method based on single depth image. <i>IET Computer Vision</i> , 2018, 12, 919-924.	2.0	18
104	Detection of weak transient signals based on unsupervised learning for bearing fault diagnosis. <i>Neurocomputing</i> , 2018, 314, 445-457.	5.9	15
105	Tachless order-tracking approach for wind turbine gearbox fault detection. <i>Frontiers of Mechanical Engineering</i> , 2017, 12, 427-439.	4.3	10
106	Recognition of SSMVEP signals based on multi-channel integrated GT2 statistic method. , 2017, , .		1
107	The Role of Visual Noise in Influencing Mental Load and Fatigue in a Steady-State Motion Visual Evoked Potential-Based Brain-Computer Interface. <i>Sensors</i> , 2017, 17, 1873.	3.8	27
108	Running state detection and performance evaluation method for feed mechanism of numerical control machine. , 2017, , .		2

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109	Using Corticomuscular Coherence to Reflect Function Recovery of Paretic Upper Limb after Stroke: A Case Study. <i>Frontiers in Neurology</i> , 2017, 8, 728.	2.4	27
110	Steady-State Motion Visual Evoked Potential (SSMVEP) Based on Equal Luminance Colored Enhancement. <i>PLoS ONE</i> , 2017, 12, e0169642.	2.5	35
111	Evaluation of stiffness feedback for hard nodule identification on a phantom silicone model. <i>PLoS ONE</i> , 2017, 12, e0172703.	2.5	12
112	Human action recognition based on kinematic similarity in real time. <i>PLoS ONE</i> , 2017, 12, e0185719.	2.5	6
113	Brain response to luminance-based and motion-based stimulation using inter-modulation frequencies. <i>PLoS ONE</i> , 2017, 12, e0188073.	2.5	14
114	Minimum Circumscribed Circle and Maximum Inscribed Circle of Roundness Deviation Evaluation With Intersecting Chord Method. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2016, 65, 2787-2796.	4.7	18
115	A motion rehabilitation self-training and evaluation system using Kinect. , 2016, , .		13
116	Multi-scale Lempel-Ziv complexity analysis of brain states. , 2016, , .		0
117	A tactile sensing and feedback system for tumor localization. , 2016, , .		11
118	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. <i>Ultrasonics</i> , 2016, 64, 25-42.	3.9	14
119	An image dimensionality reduction method for rolling bearing fault diagnosis based on singular value decomposition. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2016, 230, 1830-1845.	2.1	5
120	Evaluation of Pseudo-Haptic Interactions with Soft Objects in Virtual Environments. <i>PLoS ONE</i> , 2016, 11, e0157681.	2.5	13
121	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. <i>PLoS ONE</i> , 2016, 11, e0163426.	2.5	70
122	The Study of Object-Oriented Motor Imagery Based on EEG Suppression. <i>PLoS ONE</i> , 2015, 10, e0144256.	2.5	25
123	Rolling bearing quality evaluation based on a morphological filter and a Kolmogorov complexity measure. <i>International Journal of Precision Engineering and Manufacturing</i> , 2015, 16, 459-464.	2.2	7
124	Application of Wavelet Packet Entropy Flow Manifold Learning in Bearing Factory Inspection Using the Ultrasonic Technique. <i>Sensors</i> , 2015, 15, 341-351.	3.8	18
125	The Recovery of Weak Impulsive Signals Based on Stochastic Resonance and Moving Least Squares Fitting. <i>Sensors</i> , 2014, 14, 13692-13707.	3.8	11
126	Numerical Simulation of Nonlinear Lamb Waves Used in a Thin Plate for Detecting Buried Micro-Cracks. <i>Sensors</i> , 2014, 14, 8528-8546.	3.8	72



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127	Addition of visual noise boosts evoked potential-based brain-computer interface. Scientific Reports, 2014, 4, 4953.	3.3	20
128	A dynamic memory model for mechanical fault diagnosis using one-class support vector machine. , 2012, , .		0
129	Feature extraction method of mechanical impulse based on nonlinear manifold learning. , 2012, , .		0
130	Gaussian Bayesian network structure learning strategies based on canonical correlation analysis. , 2012, , .		1
131	Research on fault identification for complex system based on generalized linear canonical correlation analysis. , 2012, , .		5
132	Research on Bayesian Network Structure Score Function. , 2010, , .		0
133	Feature Extraction Methods for Fault Classification of Rolling Element Bearing Based on Nonlinear Dimensionality Reduction and SVMs. , 2009, , .		1
134	A spike detection method in EEG based on improved morphological filter. Computers in Biology and Medicine, 2007, 37, 1647-1652.	7.0	41
135	Grinding process supervision via information distance measure. International Journal of Production Research, 1988, 26, 1657-1664.	7.5	0