Guang-Bin Huang

List of Publications by Year
in descending order

170 papers	42,504 citations	17440 63 h-index	11939 134 g-index
177 all docs	177 docs citations	177 times ranked	17687 citing authors

#	ARTICLE	IF	CITATIONS
1	Extreme learning machine: Theory and applications. Neurocomputing, 2006, 70, 489-501.	5.9	10,570
2	Extreme Learning Machine for Regression and Multiclass Classification. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 513-529.	5.0	4,557
3	Universal Approximation Using Incremental Constructive Feedforward Networks With Random Hidden Nodes. IEEE Transactions on Neural Networks, 2006, 17, 879-892.	4.2	2,219
4	A Fast and Accurate Online Sequential Learning Algorithm for Feedforward Networks. IEEE Transactions on Neural Networks, 2006, 17, 1411-1423.	4.2	1,753
5	Extreme learning machines: a survey. International Journal of Machine Learning and Cybernetics, 2011, 2, 107-122.	3.6	1,625
6	Trends in extreme learning machines: A review. Neural Networks, 2015, 61, 32-48.	5.9	1,454
7	Extreme Learning Machine for Multilayer Perceptron. IEEE Transactions on Neural Networks and Learning Systems, 2016, 27, 809-821.	11.3	1,087
8	Extreme learning machine: a new learning scheme of feedforward neural networks. , 0, , .		1,082
9	Convex incremental extreme learning machine. Neurocomputing, 2007, 70, 3056-3062.	5.9	1,012
10	An Insight into Extreme Learning Machines: Random Neurons, Random Features and Kernels. Cognitive Computation, 2014, 6, 376-390.	5.2	822
11	Enhanced random search based incremental extreme learning machine. Neurocomputing, 2008, 71, 3460-3468.	5.9	809
12	Optimization method based extreme learning machine for classification. Neurocomputing, 2010, 74, 155-163.	5.9	799
13	Weighted extreme learning machine for imbalance learning. Neurocomputing, 2013, 101, 229-242.	5.9	743
14	Evolutionary extreme learning machine. Pattern Recognition, 2005, 38, 1759-1763.	8.1	714
15	Learning capability and storage capacity of two-hidden-layer feedforward networks. IEEE Transactions on Neural Networks, 2003, 14, 274-281.	4.2	641
16	A Generalized Growing and Pruning RBF (GGAP-RBF) Neural Network for Function Approximation. IEEE Transactions on Neural Networks, 2005, 16, 57-67.	4.2	584
17	Error Minimized Extreme Learning Machine With Growth of Hidden Nodes and Incremental Learning. IEEE Transactions on Neural Networks, 2009, 20, 1352-1357.	4.2	562
18	Upper bounds on the number of hidden neurons in feedforward networks with arbitrary bounded nonlinear activation functions. IEEE Transactions on Neural Networks, 1998, 9, 224-229.	4.2	432

#	ARTICLE	IF	CITATIONS
19	What are Extreme Learning Machines? Filling the Gap Between Frank Rosenblatt's Dream and John von Neumann's Puzzle. Cognitive Computation, 2015, 7, 263-278.	5.2	386
20	Novel Weighting-Delay-Based Stability Criteria for Recurrent Neural Networks With Time-Varying Delay. IEEE Transactions on Neural Networks, 2010, 21, 91-106.	4.2	383
21	Fusing audio, visual and textual clues for sentiment analysis from multimodal content. Neurocomputing, 2016, 174, 50-59.	5.9	372
22	Fully complex extreme learning machine. Neurocomputing, 2005, 68, 306-314.	5.9	368
23	Compressed-Domain Ship Detection on Spaceborne Optical Image Using Deep Neural Network and Extreme Learning Machine. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 1174-1185.	6.3	350
24	Robust Global Exponential Synchronization of Uncertain Chaotic Delayed Neural Networks via Dual-Stage Impulsive Control. IEEE Transactions on Systems, Man, and Cybernetics, 2010, 40, 831-844.	5.0	343
25	Sequential Adaptive Fuzzy Inference System (SAFIS) for nonlinear system identification and prediction. Fuzzy Sets and Systems, 2006, 157, 1260-1275.	2.7	330
26	Extreme Learning Machines [Trends & Controversies]. IEEE Intelligent Systems, 2013, 28, 30-59.	4.0	329
27	An Efficient Sequential Learning Algorithm for Growing and Pruning RBF (GAP-RBF) Networks. IEEE Transactions on Systems, Man, and Cybernetics, 2004, 34, 2284-2292.	5.0	325
28	Voting based extreme learning machine. Information Sciences, 2012, 185, 66-77.	6.9	311
29	Online Sequential Fuzzy Extreme Learning Machine for Function Approximation and Classification Problems. IEEE Transactions on Systems, Man, and Cybernetics, 2009, 39, 1067-1072.	5.0	306
30	Ensemble of online sequential extreme learning machine. Neurocomputing, 2009, 72, 3391-3395.	5.9	302
31	Local Receptive Fields Based Extreme Learning Machine. IEEE Computational Intelligence Magazine, 2015, 10, 18-29.	3.2	299
32	Incremental extreme learning machine with fully complex hidden nodes. Neurocomputing, 2008, 71, 576-583.	5.9	283
33	Sentic patterns: Dependency-based rules for concept-level sentiment analysis. Knowledge-Based Systems, 2014, 69, 45-63.	7.1	273
34	Self-Adaptive Evolutionary Extreme Learning Machine. Neural Processing Letters, 2012, 36, 285-305.	3.2	251
35	Can threshold networks be trained directly?. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2006, 53, 187-191.	2.2	235
36	CLASSIFICATION OF MENTAL TASKS FROM EEG SIGNALS USING EXTREME LEARNING MACHINE. International Journal of Neural Systems, 2006, 16, 29-38.	5.2	222

#	Article	IF	Citations
37	Classification ability of single hidden layer feedforward neural networks. IEEE Transactions on Neural Networks, 2000, 11, 799-801.	4.2	202
38	Multicategory Classification Using An Extreme Learning Machine for Microarray Gene Expression Cancer Diagnosis. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2007, 4, 485-495.	3.0	202
39	Sparse Extreme Learning Machine for Classification. IEEE Transactions on Cybernetics, 2014, 44, 1858-1870.	9.5	196
40	Dimension Reduction With Extreme Learning Machine. IEEE Transactions on Image Processing, 2016, 25, 3906-3918.	9.8	196
41	Face recognition based on extreme learning machine. Neurocomputing, 2011, 74, 2541-2551.	5.9	191
42	Universal Approximation of Extreme Learning Machine With Adaptive Growth of Hidden Nodes. IEEE Transactions on Neural Networks and Learning Systems, 2012, 23, 365-371.	11.3	187
43	Real-Time Learning Capability of Neural Networks. IEEE Transactions on Neural Networks, 2006, 17, 863-878.	4.2	182
44	Towards an intelligent framework for multimodal affective data analysis. Neural Networks, 2015, 63, 104-116.	5.9	173
45	Driver Distraction Detection Using Semi-Supervised Machine Learning. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 1108-1120.	8.0	167
46	Multiple kernel extreme learning machine. Neurocomputing, 2015, 149, 253-264.	5.9	157
47	EmoSenticSpace: A novel framework for affective common-sense reasoning. Knowledge-Based Systems, 2014, 69, 108-123.	7.1	132
48	Constructive hidden nodes selection of extreme learning machine for regression. Neurocomputing, 2010, 73, 3191-3199.	5.9	120
49	Stacked Extreme Learning Machines. IEEE Transactions on Cybernetics, 2015, 45, 2013-2025.	9.5	112
50	Robust Extreme Learning Machine With its Application to Indoor Positioning. IEEE Transactions on Cybernetics, 2016, 46, 194-205.	9.5	97
51	Novel Delay-Dependent Robust Stability Analysis for Switched Neutral-Type Neural Networks With Time-Varying Delays via SC Technique. IEEE Transactions on Systems, Man, and Cybernetics, 2010, 40, 1480-1491.	5.0	92
52	Two-stage extreme learning machine for regression. Neurocomputing, 2010, 73, 3028-3038.	5.9	90
53	Neuron Selection for RBF Neural Network Classifier Based on Data Structure Preserving Criterion. IEEE Transactions on Neural Networks, 2005, 16, 1531-1540.	4.2	88
54	Large-Scale Automated Sleep Staging. Sleep, 2017, 40, .	1.1	86

#	Article	IF	Citations
55	Extreme learning machines: new trends and applications. Science China Information Sciences, 2015, 58, 1-16.	4.3	85
56	Composite function wavelet neural networks with extreme learning machine. Neurocomputing, 2010, 73, 1405-1416.	5.9	84
57	Extreme learning machine: RBF network case. , 0, , .		83
58	Manifold Criterion Guided Transfer Learning via Intermediate Domain Generation. IEEE Transactions on Neural Networks and Learning Systems, 2019, 30, 3759-3773.	11.3	82
59	Extended sequential adaptive fuzzy inference system for classification problems. Evolving Systems, 2011, 2, 71-82.	3.9	77
60	An Energy-Efficient Nonvolatile In-Memory Computing Architecture for Extreme Learning Machine by Domain-Wall Nanowire Devices. IEEE Nanotechnology Magazine, 2015, 14, 998-1012.	2.0	71
61	A New Machine Learning Paradigm for Terrain Reconstruction. IEEE Geoscience and Remote Sensing Letters, 2006, 3, 382-386.	3.1	69
62	Global Convergence of Online BP Training With Dynamic Learning Rate. IEEE Transactions on Neural Networks and Learning Systems, 2012, 23, 330-341.	11.3	69
63	NMF-Based Image Quality Assessment Using Extreme Learning Machine. IEEE Transactions on Cybernetics, 2017, 47, 232-243.	9.5	68
64	Classifying protein sequences using hydropathy blocks. Pattern Recognition, 2006, 39, 2293-2300.	8.1	67
65	Silicon spiking neurons for hardware implementation of extreme learning machines. Neurocomputing, 2013, 102, 125-134.	5.9	66
66	Dynamic Extreme Learning Machine and Its Approximation Capability. IEEE Transactions on Cybernetics, 2013, 43, 2054-2065.	9.5	63
67	Fast and Accurate Spatiotemporal Fusion Based Upon Extreme Learning Machine. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 2039-2043.	3.1	62
68	Using FCMC, FVS, and PCA Techniques for Feature Extraction of Multispectral Images. IEEE Geoscience and Remote Sensing Letters, 2005, 2, 108-112.	3.1	58
69	New Trends of Learning in Computational Intelligence [Guest Editorial]. IEEE Computational Intelligence Magazine, 2015, 10, 16-17.	3.2	49
70	An extreme learning machine approach for speaker recognition. Neural Computing and Applications, 2013, 22, 417-425.	5.6	48
71	Unsupervised feature selection based extreme learning machine for clustering. Neurocomputing, 2020, 386, 198-207.	5.9	48
72	Extreme learning machines for intrusion detection. , 2012, , .		47

#	ARTICLE	IF	CITATIONS
73	Guest editorial: Special issue on Extreme learning machine and applications (I). Neural Computing and Applications, 2016, 27, 1-2.	5.6	47
74	An Automatic Identification System (AIS) Database for Maritime Trajectory Prediction and Data Mining. Proceedings in Adaptation, Learning and Optimization, 2018, , 241-257.	1.6	45
75	Discrete Wavelet Transform coefficients for emotion recognition from EEG signals. , 2012, 2012, 2251-4.		43
76	Generating Word Embeddings from an Extreme Learning Machine for Sentiment Analysis and Sequence Labeling Tasks. Cognitive Computation, 2018, 10, 625-638.	5.2	42
77	Fast Modular Network Implementation for Support Vector Machines. IEEE Transactions on Neural Networks, 2005, 16, 1651-1663.	4.2	38
78	An Intelligent Scoring System and Its Application to Cardiac Arrest Prediction. IEEE Transactions on Information Technology in Biomedicine, 2012, 16, 1324-1331.	3.2	37
79	Taste Recognition in E-Tongue Using Local Discriminant Preservation Projection. IEEE Transactions on Cybernetics, 2019, 49, 947-960.	9.5	37
80	Extreme learning machine for multi-categories classification applications. , 2008, , .		36
81	ELM based smile detection using Distance Vector. Pattern Recognition, 2018, 79, 356-369.	8.1	35
82	Composite Function Wavelet Neural Networks with Differential Evolution and Extreme Learning Machine. Neural Processing Letters, 2011, 33, 251-265.	3.2	34
83	A Fast SVD-Hidden-nodes based Extreme Learning Machine for Large-Scale Data Analytics. Neural Networks, 2016, 77, 14-28.	5.9	34
84	Liver tumor detection and segmentation using kernel-based extreme learning machine. , 2013, 2013, 3662-5.		33
85	Extreme Learning Machine for Joint Embedding and Clustering. Neurocomputing, 2018, 277, 78-88.	5.9	33
86	Improved GAP-RBF network for classification problems. Neurocomputing, 2007, 70, 3011-3018.	5.9	32
87	Learning to Rank with Extreme Learning Machine. Neural Processing Letters, 2014, 39, 155-166.	3.2	32
88	Face Recognition Based on Kernelized Extreme Learning Machine. Lecture Notes in Computer Science, 2011, , 263-272.	1.3	32
89	Learning Representations With Local and Global Geometries Preserved for Machine Fault Diagnosis. IEEE Transactions on Industrial Electronics, 2020, 67, 2360-2370.	7.9	31
90	Adaptive fuzzy fault-tolerant controller for aircraft autolanding under failures. IEEE Transactions on Aerospace and Electronic Systems, 2007, 43, 1586-1603.	4.7	30

#	Article	IF	Citations
91	Complex-valued growing and pruning RBF neural networks for communication channel equalisation. IET Computer Vision, 2006, 153, 411.	1.3	28
92	Error tolerance based support vector machine for regression. Neurocomputing, 2011, 74, 771-782.	5.9	28
93	Patient Outcome Prediction with Heart Rate Variability and Vital Signs. Journal of Signal Processing Systems, 2011, 64, 265-278.	2.1	28
94	Gradient-based no-reference image blur assessment using extreme learning machine. Neurocomputing, 2016, 174, 310-321.	5.9	28
95	Learning local discriminative representations via extreme learning machine for machine fault diagnosis. Neurocomputing, 2020, 409, 275-285.	5.9	28
96	Dynamic temperature modeling of continuous annealing furnace using GGAP-RBF neural network. Neurocomputing, 2006, 69, 523-536.	5.9	27
97	Blind Noisy Image Quality Assessment Using Sub-Band Kurtosis. IEEE Transactions on Cybernetics, 2020, 50, 1146-1156.	9.5	26
98	An adaptive graph learning method based on dual data representations for clustering. Pattern Recognition, 2018, 77, 126-139.	8.1	25
99	Reply to â€œComments on â€œThe Extreme Learning Machineâ€â€•. IEEE Transactions on Neural Networks, 2008, 19, 1495-1496.	4.2	24
100	Efficient and Rapid Machine Learning Algorithms for Big Data and Dynamic Varying Systems. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 2625-2626.	9.3	24
101	Deep and wide feature based extreme learning machine for image classification. Neurocomputing, 2020, 412, 426-436.	5.9	23
102	Advances in extreme learning machines (ELM2010). Neurocomputing, 2011, 74, 2411-2412.	5.9	22
103	Generic Object Recognition with Local Receptive Fields Based Extreme Learning Machine. Procedia Computer Science, 2015, 53, 391-399.	2.0	22
104	ELM embedded discriminative dictionary learning for image classification. Neural Networks, 2020, 123, 331-342.	5.9	19
105	Time series study of GGAP-RBF network: predictions of Nasdaq stock and nitrate contamination of drinking water. , 0, , .		18
106	Performance Evaluation of GAP-RBF Network in Channel Equalization. Neural Processing Letters, 2005, 22, 223-233.	3.2	17
107	Systemical convergence rate analysis of convex incremental feedforward neural networks. Neurocomputing, 2009, 72, 2627-2635.	5.9	17
108	A fast learning algorithm for multi-layer extreme learning machine. , 2014, , .		16

#	Article	IF	Citations
109	Driver Drowsiness Detection Based on Novel Eye Openness Recognition Method and Unsupervised Feature Learning. , 2015, , .		16
110	R-ELMNet: Regularized extreme learning machine network. Neural Networks, 2020, 130, 49-59.	5.9	16
111	Random feature subspace ensemble based Extreme Learning Machine for liver tumor detection and segmentation. , 2014, 2014, 4675-8.		15
112	NOx Measurements in Vehicle Exhaust Using Advanced Deep ELM Networks. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	4.7	13
113	Detection of Driversâ€™ Distraction Using Semi-Supervised Extreme Learning Machine. Proceedings in Adaptation, Learning and Optimization, 2015, , 379-387.	1.6	12
114	Driver Workload Detection in On-Road Driving Environment Using Machine Learning. Proceedings in Adaptation, Learning and Optimization, 2015, , 389-398.	1.6	12
115	Grid-based large-scale Web3D collaborative virtual environment. , 2007, , .		11
116	Smile detection using Pair-wise Distance Vector and Extreme Learning Machine. , 2016, , .		11
117	Quantitative Analysis of Gas Phase IR Spectra Based on Extreme Learning Machine Regression Model. Sensors, 2019, 19, 5535.	3.8	11
118	General approximation theorem on feedforward networks. , 0, , .		10
119	QoS provisioning using IPv6 flow label in the internet. , 0, , .		10
120	FUZZY EXTREME LEARNING MACHINE FOR A CLASS OF FUZZY INFERENCE SYSTEMS. International Journal of Uncertainty, Fuzziness and Knowlege-Based Systems, 2013, 21, 51-61.	1.9	10
121	Comments on "Approximation capability in C(R/sup n/) by multilayer feedforward networks and related problems". IEEE Transactions on Neural Networks, 1998, 9, 714-715.	4.2	9
122	A constructive enhancement for Online Sequential Extreme Learning Machine. , 2009, , .		9
123	Cluster Regularized Extreme Learning Machine for Detecting Mixed-Type Distraction in Driving. , 2015, , .		9
124	A low-dimensional vector representation for words using an extreme learning machine. , 2017, , .		9
125	Face recognition using total loss function on face database with ID photos. Optics and Laser Technology, 2019, 110, 227-233.	4.6	9
126	Computation using mismatch: Neuromorphic extreme learning machines. , 2013, , .		8

#	Article	IF	Citations
127	Learning Polychronous Neuronal Groups Using Joint Weight-Delay Spike-Timing-Dependent Plasticity. Neural Computation, 2016, 28, 2181-2212.	2.2	8
128	Compact Feature Representation for Image Classification Using ELMs. , 2017, , .		8
129	Content-Insensitive Blind Image Blurriness Assessment Using Weibull Statistics and Sparse Extreme Learning Machine. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 516-527.	9.3	8
130	Ordering of Self-Organizing Maps in Multidimensional Cases. Neural Computation, 1998, 10, 19-23.	2.2	7
131	Extreme Learning Machine based bacterial protein subcellular localization prediction. , 2008, , .		7
132	Extreme Learning Machine with Adaptive Growth of Hidden Nodes and Incremental Updating of Output Weights. Lecture Notes in Computer Science, 2011, , 253-262.	1.3	7
133	Credit risk evaluation with extreme learning machine. , 2012, , .		7
134	Two-stage structured learning approach for stable occupancy detection. , 2016, , .		7
135	Conditional Random Mapping for Effective ELM Feature Representation. Cognitive Computation, 2018, 10, 827-847.	5.2	7
136	Simultaneously learning affinity matrix and data representations for machine fault diagnosis. Neural Networks, 2020, 122, 395-406.	5.9	7
137	Clustering via Adaptive and Locality-constrained Graph Learning and Unsupervised ELM. Neurocomputing, 2020, 401, 224-235.	5.9	7
138	Effective visual tracking by pairwise metric learning. Neurocomputing, 2017, 261, 266-275.	5.9	6
139	Multi layer multi objective extreme learning machine. , 2017, , .		6
140	GenELM: Generative Extreme Learning Machine feature representation. Neurocomputing, 2019, 362, 41-50.	5.9	6
141	Learning Algorithms and Signal Processing for Brain-Inspired Computing [From the Guest Editors]. IEEE Signal Processing Magazine, 2019, 36, 12-15.	5.6	6
142	Fuzzy Fault Tolerant Controller for Actuator Failures during Aircraft Autolanding. , 2006, , .		5
143	Voting base online sequential extreme learning machine for multi-class classification. , 2013, , .		5
144	Slice-Based Online Convolutional Dictionary Learning. IEEE Transactions on Cybernetics, 2021, 51, 5116-5129.	9.5	5

#	ARTICLE	IF	CITATIONS
145	Unsupervised feature learning with sparse Bayesian auto-encoding based extreme learning machine. International Journal of Machine Learning and Cybernetics, 2020, 11, 1557-1569.	3.6	5
146	Dual distance adaptive multiview clustering. Neurocomputing, 2021, 441, 311-322.	5.9	5
147	Efficient joint model learning, segmentation and model updating for visual tracking. Neural Networks, 2022, 147, 175-185.	5.9	5
148	An efficient sequential RBF network for bio-medical classification problems. , 0, , .		4
149	New Trends of Learning in Computational Intelligence (Part II) [Guest Editorial]. IEEE Computational Intelligence Magazine, 2015, 10, 8-8.	3.2	4
150	Sparse Extreme Learning Machine for Regression. Proceedings in Adaptation, Learning and Optimization, 2016, , 471-490.	1.6	4
151	Elmnet: Feature learning using extreme learning machines. , 2017, , .		4
152	Special issue on extreme learning machine and deep learning networks. Neural Computing and Applications, 2020, 32, 14241-14245.	5.6	4
153	A theoretical study of the relationship between an ELM network and its subnetworks. , 2017, , .		3
154	Octree-based Convolutional Autoencoder Extreme Learning Machine for 3D Shape Classification. , 2018, , .		3
155	Furnace Temperature Modeling for Continuous Annealing Process Based on Generalized Growing and Pruning RBF Neural Network. Lecture Notes in Computer Science, 2004, , 755-760.	1.3	3
156	A fast constructive learning algorithm for single-hidden-layer neural networks. , 0, , .		2
157	Receding Horizon Cache and Extreme Learning Machine based Reinforcement Learning. , 2012, , .		2
158	Estimating vigilance from EEG using manifold clustering guided by instantaneous lapse rate. , 2015, , .		2
159	Data Driven Convolutional Sparse Coding for Visual Recognition. , 2018, , .		2
160	Self-adjustment of neuron impact width in growing and pruning rbf (GAP-RBF) neuron networks. , 0, , .		1
161	An Efficient Sequential RBF Network for Gene Expression-Based Multi-category classification. , 2005, , .		1
162	Fast Construction of Single-Hidden-Layer Feedforward Networks. , 2012, , 507-531.		1

#	Article	IF	Citations
163	Multifeature Extreme Ordinal Ranking Machine for Facial Age Estimation. Mathematical Problems in Engineering, 2015, 2015, 1-9.	1.1	1
164	Gradient-Based No-Reference Image Blur Assessment Using Extreme Learning Machine. Proceedings in Adaptation, Learning and Optimization, 2015, , 223-232.	1.6	1
165	Time constrain optimal method to find the minimum architectures for feedforward neural networks. , 0, , .		0
166	Simplification of a specific two-hidden-layer feedforward networks. , 0, , .		0
167	A fast modular implementation for neural networks. , 0, , .		0
168	Terrain Modeling Using Machine Learning Methods. , 2006, , .		0
169	Patient classification based on pre-hospital heart rate variability. , 2008, , .		0
170	Sparse Bayesian Learning for Extreme Learning Machine Auto-encoder. Proceedings in Adaptation, Learning and Optimization, 2020, , 319-327.	1.6	0