

Hui Liu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/791717/publications.pdf>

Version: 2024-02-01

148
papers

6,963
citations

76294

40
h-index

62565

80
g-index

156
all docs

156
docs citations

156
times ranked

3714
citing authors

#	ARTICLE	IF	CITATIONS
1	Wind speed forecasting method based on deep learning strategy using empirical wavelet transform, long short term memory neural network and Elman neural network. Energy Conversion and Management, 2018, 156, 498-514.	4.4	363
2	Smart multi-step deep learning model for wind speed forecasting based on variational mode decomposition, singular spectrum analysis, LSTM network and ELM. Energy Conversion and Management, 2018, 159, 54-64.	4.4	342
3	Comparison of two new ARIMA-ANN and ARIMA-Kalman hybrid methods for wind speed prediction. Applied Energy, 2012, 98, 415-424.	5.1	332
4	Forecasting models for wind speed using wavelet, wavelet packet, time series and Artificial Neural Networks. Applied Energy, 2013, 107, 191-208.	5.1	293
5	A hybrid model for wind speed prediction using empirical mode decomposition and artificial neural networks. Renewable Energy, 2012, 48, 545-556.	4.3	248
6	Wind speed forecasting approach using secondary decomposition algorithm and Elman neural networks. Applied Energy, 2015, 157, 183-194.	5.1	240
7	Smart deep learning based wind speed prediction model using wavelet packet decomposition, convolutional neural network and convolutional long short term memory network. Energy Conversion and Management, 2018, 166, 120-131.	4.4	239
8	Data processing strategies in wind energy forecasting models and applications: A comprehensive review. Applied Energy, 2019, 249, 392-408.	5.1	228
9	A hybrid statistical method to predict wind speed and wind power. Renewable Energy, 2010, 35, 1857-1861.	4.3	217
10	Deterministic wind energy forecasting: A review of intelligent predictors and auxiliary methods. Energy Conversion and Management, 2019, 195, 328-345.	4.4	208
11	Grey relational analysis, principal component analysis and forecasting of carbon emissions based on long short-term memory in China. Journal of Cleaner Production, 2019, 209, 415-423.	4.6	194
12	Wind speed prediction model using singular spectrum analysis, empirical mode decomposition and convolutional support vector machine. Energy Conversion and Management, 2019, 180, 196-205.	4.4	176
13	Comparison of four Adaboost algorithm based artificial neural networks in wind speed predictions. Energy Conversion and Management, 2015, 92, 67-81.	4.4	144
14	Smart wind speed deep learning based multi-step forecasting model using singular spectrum analysis, convolutional Gated Recurrent Unit network and Support Vector Regression. Renewable Energy, 2019, 143, 842-854.	4.3	141
15	New wind speed forecasting approaches using fast ensemble empirical model decomposition, genetic algorithm, Mind Evolutionary Algorithm and Artificial Neural Networks. Renewable Energy, 2015, 83, 1066-1075.	4.3	139
16	Multi-step wind speed forecasting using EWT decomposition, LSTM principal computing, RELM subordinate computing and IEWT reconstruction. Energy Conversion and Management, 2018, 167, 203-219.	4.4	138
17	Comparison of new hybrid FEEMD-MLP, FEEMD-ANFIS, Wavelet Packet-MLP and Wavelet Packet-ANFIS for wind speed predictions. Energy Conversion and Management, 2015, 89, 1-11.	4.4	127
18	Four wind speed multi-step forecasting models using extreme learning machines and signal decomposing algorithms. Energy Conversion and Management, 2015, 100, 16-22.	4.4	120

#	ARTICLE	IF	CITATIONS
19	An experimental investigation of three new hybrid wind speed forecasting models using multi-decomposing strategy and ELM algorithm. <i>Renewable Energy</i> , 2018, 123, 694-705.	4.3	120
20	An EMD-recursive ARIMA method to predict wind speed for railway strong wind warning system. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2015, 141, 27-38.	1.7	119
21	Comparison of two new intelligent wind speed forecasting approaches based on Wavelet Packet Decomposition, Complete Ensemble Empirical Mode Decomposition with Adaptive Noise and Artificial Neural Networks. <i>Energy Conversion and Management</i> , 2018, 155, 188-200.	4.4	117
22	A new hybrid ensemble deep reinforcement learning model for wind speed short term forecasting. <i>Energy</i> , 2020, 202, 117794.	4.5	113
23	Big multi-step wind speed forecasting model based on secondary decomposition, ensemble method and error correction algorithm. <i>Energy Conversion and Management</i> , 2018, 156, 525-541.	4.4	109
24	A review on multi-objective optimization framework in wind energy forecasting techniques and applications. <i>Energy Conversion and Management</i> , 2020, 224, 113324.	4.4	104
25	Smart wind speed forecasting using EWT decomposition, GWO evolutionary optimization, RELM learning and IEWT reconstruction. <i>Energy Conversion and Management</i> , 2018, 161, 266-283.	4.4	95
26	Smart wind speed forecasting approach using various boosting algorithms, big multi-step forecasting strategy. <i>Renewable Energy</i> , 2019, 135, 540-553.	4.3	91
27	Wind speed forecasting method using wavelet, extreme learning machine and outlier correction algorithm. <i>Energy Conversion and Management</i> , 2017, 151, 709-722.	4.4	86
28	An experimental investigation of two Wavelet-MLP hybrid frameworks for wind speed prediction using GA and PSO optimization. <i>International Journal of Electrical Power and Energy Systems</i> , 2013, 52, 161-173.	3.3	83
29	Multi-objective data-ensemble wind speed forecasting model with stacked sparse autoencoder and adaptive decomposition-based error correction. <i>Applied Energy</i> , 2019, 254, 113686.	5.1	79
30	An improved deep learning model for predicting stock market price time series. , 2020, 102, 102741.		74
31	Intelligent modeling strategies for forecasting air quality time series: A review. <i>Applied Soft Computing Journal</i> , 2021, 102, 106957.	4.1	74
32	Air PM2.5 concentration multi-step forecasting using a new hybrid modeling method: Comparing cases for four cities in China. <i>Atmospheric Pollution Research</i> , 2019, 10, 1588-1600.	1.8	69
33	A novel ensemble model of different mother wavelets for wind speed multi-step forecasting. <i>Applied Energy</i> , 2018, 228, 1783-1800.	5.1	63
34	A hybrid neural network model for short-term wind speed forecasting based on decomposition, multi-learner ensemble, and adaptive multiple error corrections. <i>Renewable Energy</i> , 2021, 165, 573-594.	4.3	60
35	An intelligent hybrid model for air pollutant concentrations forecasting: Case of Beijing in China. <i>Sustainable Cities and Society</i> , 2019, 47, 101471.	5.1	58
36	Medium-term wind power forecasting based on multi-resolution multi-learner ensemble and adaptive model selection. <i>Energy Conversion and Management</i> , 2020, 206, 112492.	4.4	53

#	ARTICLE	IF	CITATIONS
37	Data multi-scale decomposition strategies for air pollution forecasting: A comprehensive review. <i>Journal of Cleaner Production</i> , 2020, 277, 124023.	4.6	52
38	Wind speed forecasting models based on data decomposition, feature selection and group method of data handling network. <i>Measurement: Journal of the International Measurement Confederation</i> , 2019, 148, 106971.	2.5	51
39	A hybrid multi-resolution multi-objective ensemble model and its application for forecasting of daily PM2.5 concentrations. <i>Information Sciences</i> , 2020, 516, 266-292.	4.0	50
40	Wind speed forecasting using a new multi-factor fusion and multi-resolution ensemble model with real-time decomposition and adaptive error correction. <i>Energy Conversion and Management</i> , 2020, 217, 112995.	4.4	47
41	Influence of the geometry of equal-transect oblique tunnel portal on compression wave and micro-pressure wave generated by high-speed trains entering tunnels. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018, 178, 1-17.	1.7	45
42	Dynamic ensemble wind speed prediction model based on hybrid deep reinforcement learning. <i>Advanced Engineering Informatics</i> , 2021, 48, 101290.	4.0	44
43	Spatial air quality index prediction model based on decomposition, adaptive boosting, and three-stage feature selection: A case study in China. <i>Journal of Cleaner Production</i> , 2020, 265, 121777.	4.6	41
44	A hybrid model for appliance classification based on time series features. <i>Energy and Buildings</i> , 2019, 196, 112-123.	3.1	40
45	Improved pollution forecasting hybrid algorithms based on the ensemble method. <i>Applied Mathematical Modelling</i> , 2019, 73, 473-486.	2.2	37
46	A New Model Using Multiple Feature Clustering and Neural Networks for Forecasting Hourly PM2.5 Concentrations, and Its Applications in China. <i>Engineering</i> , 2020, 6, 944-956.	3.2	37
47	Prediction of outdoor PM2.5 concentrations based on a three-stage hybrid neural network model. <i>Atmospheric Pollution Research</i> , 2020, 11, 469-481.	1.8	36
48	Influence of tunnel aerodynamic effects by slope of equal-transect ring oblique tunnel portal. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2017, 169, 106-116.	1.7	35
49	A novel axle temperature forecasting method based on decomposition, reinforcement learning optimization and neural network. <i>Advanced Engineering Informatics</i> , 2020, 44, 101089.	4.0	34
50	A novel two-stage deep learning wind speed forecasting method with adaptive multiple error corrections and bivariate Dirichlet process mixture model. <i>Energy Conversion and Management</i> , 2019, 199, 111975.	4.4	32
51	A hybrid framework for forecasting PM2.5 concentrations using multi-step deterministic and probabilistic strategy. <i>Air Quality, Atmosphere and Health</i> , 2019, 12, 785-795.	1.5	32
52	A distributed computing framework for wind speed big data forecasting on Apache Spark. <i>Sustainable Energy Technologies and Assessments</i> , 2020, 37, 100582.	1.7	31
53	Mobile Robot for Life Science Automation. <i>International Journal of Advanced Robotic Systems</i> , 2013, 10, 288.	1.3	29
54	Short-term wind speed forecasting using deep reinforcement learning with improved multiple error correction approach. <i>Energy</i> , 2022, 239, 122128.	4.5	27

#	ARTICLE	IF	CITATIONS
55	Wind power prediction based on outlier correction, ensemble reinforcement learning, and residual correction. <i>Energy</i> , 2022, 250, 123857.	4.5	27
56	Wind speed big data forecasting using time-variant multi-resolution ensemble model with clustering auto-encoder. <i>Applied Energy</i> , 2020, 280, 115975.	5.1	26
57	A spatial multi-resolution multi-objective data-driven ensemble model for multi-step air quality index forecasting based on real-time decomposition. <i>Computers in Industry</i> , 2021, 125, 103387.	5.7	26
58	A multimodal approach to chaotic renewable energy prediction using meteorological and historical information. <i>Applied Soft Computing Journal</i> , 2022, 118, 108487.	4.1	26
59	A new hybrid model based on secondary decomposition, reinforcement learning and SRU network for wind turbine gearbox oil temperature forecasting. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 178, 109347.	2.5	25
60	An improved non-intrusive load disaggregation algorithm and its application. <i>Sustainable Cities and Society</i> , 2020, 53, 101918.	5.1	24
61	A hybrid model for river water level forecasting: Cases of Xiangjiang River and Yuanjiang River, China. <i>Journal of Hydrology</i> , 2020, 587, 124934.	2.3	24
62	A novel hybrid model for multi-step daily AQI forecasting driven by air pollution big data. <i>Air Quality, Atmosphere and Health</i> , 2020, 13, 197-207.	1.5	23
63	An evolution-dependent multi-objective ensemble model of vanishing moment with adversarial auto-encoder for short-term wind speed forecasting in Xinjiang wind farm, China. <i>Energy Conversion and Management</i> , 2019, 198, 111914.	4.4	21
64	SVM-based image partitioning for vision recognition of AGV guide paths under complex illumination conditions. <i>Robotics and Computer-Integrated Manufacturing</i> , 2020, 61, 101856.	6.1	21
65	A common wireless remote control system for mobile robots in laboratory. , 2012, , .		20
66	Corrected multi-resolution ensemble model for wind power forecasting with real-time decomposition and Bivariate Kernel density estimation. <i>Energy Conversion and Management</i> , 2020, 203, 112265.	4.4	20
67	PM2.5 concentrations forecasting using a new multi-objective feature selection and ensemble framework. <i>Atmospheric Pollution Research</i> , 2020, 11, 1187-1198.	1.8	20
68	Hourly PM2.5 concentration multi-step forecasting method based on extreme learning machine, boosting algorithm and error correction model. , 2021, 118, 103221.		20
69	A new ensemble spatio-temporal PM2.5 prediction method based on graph attention recursive networks and reinforcement learning. <i>Chaos, Solitons and Fractals</i> , 2022, 162, 112405.	2.5	20
70	Wind speed forecasting using multi-scale feature adaptive extraction ensemble model with error regression correction. <i>Expert Systems With Applications</i> , 2022, 207, 117358.	4.4	19
71	A Hybrid Neural Network Model for Marine Dissolved Oxygen Concentrations Time-Series Forecasting Based on Multi-Factor Analysis and a Multi-Model Ensemble. <i>Engineering</i> , 2021, 7, 1751-1765.	3.2	18
72	DESA: a novel hybrid decomposing-ensemble and spatiotemporal attention model for PM2.5 forecasting. <i>Environmental Science and Pollution Research</i> , 2022, 29, 54150-54166.	2.7	17

#	ARTICLE	IF	CITATIONS
73	Adaptive wavelet transform model for time series data prediction. <i>Soft Computing</i> , 2020, 24, 5877-5884.	2.1	16
74	A novel hybrid ensemble model for hourly PM2.5 forecasting using multiple neural networks: a case study in China. <i>Air Quality, Atmosphere and Health</i> , 2020, 13, 1411-1420.	1.5	16
75	A Highly Flexible, Automated System Providing Reliable Sample Preparation in Element- and Structure-Specific Measurements. <i>Journal of the Association for Laboratory Automation</i> , 2016, 21, 682-692.	2.8	15
76	Non-intrusive load transient identification based on multivariate LSTM neural network and time series data augmentation. <i>Sustainable Energy, Grids and Networks</i> , 2021, 27, 100490.	2.3	15
77	Structure realization method for collapse threshold of plastic deformation in train collision condition. <i>Central South University</i> , 2011, 18, 244-249.	0.5	14
78	A New Robust Method for Mobile Robot Multifloor Navigation in Distributed Life Science Laboratories. <i>Journal of Control Science and Engineering</i> , 2016, 2016, 1-17.	0.8	14
79	A robust method for elevator operation in semi-outdoor environment for mobile robot transportation system in life science laboratories. , 2016, , .		14
80	A vanishing moment ensemble model for wind speed multi-step prediction with multi-objective base model selection. <i>Applied Energy</i> , 2020, 261, 114367.	5.1	14
81	AQI time series prediction based on a hybrid data decomposition and echo state networks. <i>Environmental Science and Pollution Research</i> , 2021, 28, 51160-51182.	2.7	14
82	Non-intrusive Load Monitoring. , 2020, , .		13
83	Multi-step wind speed forecasting model based on wavelet matching analysis and hybrid optimization framework. <i>Sustainable Energy Technologies and Assessments</i> , 2020, 40, 100745.	1.7	13
84	A hybrid decomposition-boosting model for short-term multi-step solar radiation forecasting with NARX neural network. <i>Journal of Central South University</i> , 2021, 28, 507-526.	1.2	13
85	A Floyd-Dijkstra hybrid application for mobile robot path planning in life science automation. , 2012, , .		12
86	Spatial ensemble prediction of hourly PM2.5 concentrations around Beijing railway station in China. <i>Air Quality, Atmosphere and Health</i> , 2020, 13, 563-573.	1.5	11
87	General Geometry Calibration Using Arbitrary Free-Form Surface in a Vision-Based Robot System. <i>IEEE Transactions on Industrial Electronics</i> , 2022, 69, 5994-6003.	5.2	11
88	A Fast Approach to Arm Blind Grasping and Placing for Mobile Robot Transportation in Laboratories. <i>International Journal of Advanced Robotic Systems</i> , 2014, 11, 43.	1.3	10
89	A novel ensemble reinforcement learning gated unit model for daily PM2.5 forecasting. <i>Air Quality, Atmosphere and Health</i> , 2021, 14, 443-453.	1.5	10
90	A floyd-genetic algorithm based path planning system for mobile robots in laboratory automation. , 2012, , .		9

#	ARTICLE	IF	CITATIONS
91	A fast method for mobile robot transportation in life science automation. , 2013, , .		9
92	An application of charging management for mobile robot transportation in laboratory environments. , 2013, , .		9
93	A new method for mobile robot arm blind grasping using ultrasonic sensors and Artificial Neural Networks. , 2013, , .		9
94	Short-term forecasting optimization algorithms for wind speed along Qinghai-Tibet railway based on different intelligent modeling theories. Central South University, 2009, 16, 690-696.	0.5	8
95	Mobile robotic transportation in laboratory automation: Multi-robot control, robot-door integration and robot-human interaction. , 2014, , .		8
96	Elman neural network optimized by firefly algorithm for forecasting China's carbon dioxide emissions. Systems Science and Control Engineering, 2019, 7, 8-15.	1.8	8
97	A new PM2.5 forecasting model based on data preprocessing, reinforcement learning and gated recurrent unit network. Atmospheric Pollution Research, 2022, 13, 101475.	1.8	8
98	Multi-floor navigation method for mobile robot transportation based on StarGazer sensors in life science automation. , 2015, , .		7
99	Arm grasping for mobile robot transportation using Kinect sensor and kinematic analysis. , 2015, , .		7
100	An enhanced hybrid ensemble deep learning approach for forecasting daily PM2.5. Journal of Central South University, 2022, 29, 2074-2083.	1.2	7
101	A backbone-floyd hybrid path planning method for mobile robot transportation in multi-floor life science laboratories. , 2016, , .		6
102	Interactive collision avoidance system for indoor mobile robots based on human-robot interaction. , 2016, , .		6
103	Smart Cities: Big Data Prediction Methods and Applications. , 2020, , .		6
104	Human face orientation recognition for intelligent mobile robot collision avoidance in laboratory environments using feature detection and LVQ neural networks. , 2015, , .		5
105	New localization strategy for mobile robot transportation in life science automation using StarGazer sensor, time series modeling and Kalman filter processing. , 2015, , .		5
106	Intelligent arm manipulation system in life science labs using H2O mobile robot and Kinect sensor. , 2016, , .		5
107	Kinematic Analysis of 6-DOF Arms for H2O Mobile Robots and Labware Manipulation for Transportation in Life Science Labs. Journal of Automation, Mobile Robotics and Intelligent Systems, 2016, 10, 40-52.	0.4	5
108	Human Robot Interaction for Hybrid Collision Avoidance System for Indoor Mobile Robots. Advances in Science, Technology and Engineering Systems, 2017, 2, 650-657.	0.4	5

#	ARTICLE	IF	CITATIONS
109	Characteristic and correlation analysis of metro loads. , 2022, , 237-267.		5
110	A new approach to battery power tracking and predicting for mobile robot transportation using wavelet decomposition and ANFIS networks. , 2014, , .		4
111	Improving the navigation of indoor mobile robots using Kalman filter. , 2015, , .		4
112	An identification and localization approach of different labware for mobile robot transportation in life science laboratories. , 2016, , .		4
113	Human-Mobile Robot Interaction in laboratories using Kinect Sensor and ELM based face feature recognition. , 2016, , .		4
114	Multi-floor laboratory transportation technologies based on intelligent mobile robots. Transportation Safety and Environment, 2019, 1, 37-53.	1.1	4
115	Transportation robot battery power forecasting based on bidirectional deep-learning method. Transportation Safety and Environment, 2019, 1, 205-211.	1.1	4
116	Single-point wind forecasting methods based on reinforcement learning. , 2021, , 177-214.		4
117	Grasping and Placing Operation for Labware Transportation in Life Science Laboratories using Mobile Robots. Advances in Science, Technology and Engineering Systems, 2017, 2, 1227-1237.	0.4	4
118	Big Data Forecasting Model of Indoor Positions for Mobile Robot Navigation Based on Apache Spark Platform. , 2019, , .		3
119	Hourly traffic flow forecasting using a new hybrid modelling method. Journal of Central South University, 2022, 29, 1389-1402.	1.2	3
120	Hybrid Position Forecasting Method for Mobile Robot Transportation in Smart Indoor Environment. , 2019, , .		2
121	Description methods of spatial wind along railways. , 2021, , 251-282.		2
122	A Secure Automated Elevator Management System and Pressure Sensor based Floor Estimation for Indoor Mobile Robot Transportation. Advances in Science, Technology and Engineering Systems, 2017, 2, 1599-1608.	0.4	1
123	Prediction Model of Urban Environmental Noise in Smart Environment. , 2020, , 289-314.		1
124	Characteristics and Analysis of Urban Traffic Flow in Smart Traffic Systems. , 2020, , 125-158.		1
125	Prediction Models of Energy Consumption in Smart Urban Buildings. , 2020, , 89-121.		1
126	Dual-stage time series analysis on multifeature adaptive frequency domain modeling. International Journal of Intelligent Systems, 2022, 37, 7837-7856.	3.3	1

#	ARTICLE	IF	CITATIONS
127	Sensitivity Analysis of Cost Elements in Rail Transit System Using EO-FNN. , 2019, , .		0
128	Household Appliance Identification Based on a Novel Load Signature Processing Framework. , 2019, , .		0
129	Single-point wind forecasting methods based on ensemble modeling. , 2021, , 215-250.		0
130	Description of single-point wind time series along railways. , 2021, , 69-136.		0
131	Single-point wind forecasting methods based on deep learning. , 2021, , 137-175.		0
132	Unmanned driving intelligent algorithm simulation platform. , 2021, , 297-341.		0
133	Recognition and Position Estimation for Multiple Labware Transportation Using Kinect V2 and Mobile Robots. Advances in Science, Technology and Engineering Systems, 2017, 2, 1218-1226.	0.4	0
134	Application of ELM in Key Impact Factors Identification of Rail Transit System Cost. , 2019, , .		0
135	Prediction Models of Urban Air Quality in Smart Environment. , 2020, , 227-260.		0
136	Smart Non-intrusive Device Recognition Based on Physical Methods. , 2021, , 45-79.		0
137	Smart Non-intrusive Device Recognition Based on Intelligent Optimization Methods. , 2021, , 169-192.		0
138	Smart Non-intrusive Device Recognition Based on Ensemble Methods. , 2021, , 193-227.		0
139	Prediction Models of Traffic Flow Driven Based on Multi-Dimensional Data in Smart Traffic Systems. , 2020, , 195-223.		0
140	Metro traffic flow monitoring and passenger guidance. , 2022, , 33-58.		0
141	Monitoring and spatial prediction of multidimensional air pollutants. , 2022, , 171-200.		0
142	Time series feature extraction and analysis of metro loads. , 2022, , 201-236.		0
143	Monitoring and deterministic prediction of station humidity. , 2022, , 107-134.		0
144	Monitoring and probabilistic prediction of station temperature. , 2022, , 135-169.		0

#	ARTICLE	IF	CITATIONS
145	Big Data Analysis of Energy Economics in Photovoltaic Power Generation Market. Management for Professionals, 2022, , 117-136.	0.3	0
146	Big Data Analysis of Energy Economics in Coal Market. Management for Professionals, 2022, , 67-94.	0.3	0
147	Global Energy Internet Green and Low-Carbon Energy Economic Innovation. Management for Professionals, 2022, , 233-258.	0.3	0
148	A novel adaptive ensemble model framework for short-term traffic flow prediction based on model selection and multi-objective optimization. , 2021, , .		0