

Professor (Research) Jianzhou Wang

Department of Engineering Science, F

wind energy resource assessment and prediction, **Liaoning Provincial Department of Education** project (vertical special funds) - scientific research funding project, 2019-2021, has been concluded and is the main sponsor.

8. Northwest regional weather modification project *Qilian mountains topography cloud artificial rain (snow) technology*, **Lanzhou University and Dongbei University of Finance and Economics**, 2018-2021, has been concluded and presided over.

1. An analysis-forecast system for uncertainty modeling of wind speed: A case study of large-scale wind farms (10.1016/j.apenergy.2017.11.071), **SCI, Applied Energy**, 2/2018, 1/6.
2. Research and application of a hybrid forecasting framework based on multi-objective optimization for electrical power system (doi.org/10.1016/j.energy.2018.01.112), **SCI, Energy**, 4/2018, 1/4.
3. A novel hybrid forecasting system of wind speed based on a newly developed multi-objective sine cosine algorithm (doi.org/10.1016/j.enconman.2018.02.012), **SCI, Energy Conversion and Management**, 5/2018, 1/4.
4. Application of a novel early warning system based on fuzzy time series in urban air quality forecasting in China (10.1016/j.asoc.2018.07.030), **SCI, Applied Soft Computing**, 10/2018, 1/3.
5. An improved grey model optimized by multi-objective ant lion optimization algorithm for annual electricity consumption forecasting (10.1016/j.asoc.2018.07.022), **SCI, Applied Soft Computing**, 11/2018, 1/5.
6. Comparison of seven methods for determining the optimal statistical distribution parameters: A case study of wind energy assessment in the large-scale wind farms of China (10.1016/j.energy.2018.08.201), **SCI, Applied Soft Computing**, 12/2018, 1/4.
7. A novel system based on neural networks with linear combination framework for wind speed forecasting (doi.org/10.1016/j.enconman.2018.12.020), **SCI, Energy Conversion and Management**, 2/2019, 1/3.
8. A novel non-linear combination system for short-term wind speed forecast (doi.org/10.1016/j.renene.2019.04.154), **SCI, Renewable Energy**, 12/2019, 1/3.
9. Research and application of the hybrid forecasting model based on secondary denoising and multi-objective optimization for air pollution early warning system (doi.org/10.1016/j.jclepro.2019.06.201), **SCI, Journal of Cleaner Production**, 10/2019, 1/4.
10. Integrating offline logistics and online system to recycle e-bicycle battery in China (10.1016/j.jclepro.2019.119095), **SCI, Journal of Cleaner Production**, 2/2020, 1/5.
11. Outlier-robust hybrid electricity price forecasting model for electricity market management (10.1016/j.jclepro.2019.119318), **SCI, Journal of Cleaner Production**, 3/2020, 1/4.
12. An innovative hybrid model based on outlier detection and correction algorithm and heuristic intelligent optimization algorithm for daily air quality index forecasting (10.1016/j.jenvman.2019.109855), **SCI, Journal of Environmental Management**, 2/2020, 1/6.
13. Effects of PM_{2.5} on health and economic loss: Evidence from Beijing-Tianjin-Hebei region of China (10.1016/j.jclepro.2020.120605), **SCI, Journal of Cleaner Production**, 6/2020, 1/4.
14. Ensemble probabilistic prediction approach for modeling uncertainty in crude oil price (10.1016/j.asoc.2020.106509), **SCI, Applied Soft Computing**, 10/2020, 1/4.
15. Ensemble probabilistic prediction approach for modeling uncertainty in crude oil price (10.1016/j.engappai.2020.103783), **SCI, Engineering Applications of Artificial Intelligence**, 10/2020, 1/4.
16. A Novel Framework of Reservoir Computing for Deterministic and Probabilistic Wind Power Forecasting (10.1109/TSTE.2019.2890875), **SCI, IEEE Transactions on Sustainable Energy**, 1/2020, 1/5.
17. Intelligent multivariable air-quality forecasting system based on feature selection and modified evolving interval type-2 quantum fuzzy neural network (doi.org/10.1016/j.envpol.2021.116429), **SCI, Environmental Pollution**, 4/2021, 1/4.
18. Point and interval prediction for non-ferrous metals based on a hybrid prediction framework (doi.org/10.1016/J.RESOURPOL.2021.102222), **SCI, Resources Policy**, 10/20

28. *An integrated forecasting system based on knee-based*

61. *Double ensemble system for wind energy forecasting based on generalized autoregressive conditional heteroskedasticity and neural network models with variational mode decomposition* (10.1080/15567036.2021.1922550), **SCI, Energy Sources Part A-Recovery Utilization and Environmental Effects**,5/2021,2/2.
62. *Wind speed prediction system based on data pre-processing strategy and multi-objective dragonfly optimization algorithm* (doi.org/10.1016/j.seta.2021.101346), **SCI, Sustainable Energy Technologies and Assessments**,6/2021,2/3.
63. *A novel combined model for wind speed prediction - Combination of linear model, shallow neural networks, and deep learning approaches* (doi.org/10.1016/J.ENERGY.2021.121275), **SCI, Energy**,6/2021,2/4
64. *Ensemble wind speed forecasting with multi-objective Archimedes optimization algorithm and sub-model selection* (doi.org/10.1016/j.apenergy.2021.117449), **SCI, Applied Energy**,7/2021,2/4.
65. *An advanced weighted system based on swarm intelligence optimization for wind speed prediction* (doi.org/10.1016/j.apm.2021.07.024), **SCI, Applied Mathematical Modelling**, 8/2021,2/4.
66. *A wind speed interval forecasting system based on constrained lower upper bound estimation and parallel feature selection* (doi.org/10.1016/j.knosys.2021.107435), **SCI, Knowledge-Based Systems**,8/2021,2/3.
67. *PM2.5 prediction and related health effects and economic cost assessments in 2020 and 2021: Case studies in Jing-Jin-Ji, China* (10.1016/j.knosys.2021.107487), **SCI, Knowledge-Based Systems**,9/2021,2/4.
68. *Comparison of the goodness*

wind speed of wind farms in western China (doi.org/10.1016/j.ins.2019.07.074), **SCI, Information Sciences**, 7/2019, 3/5.

93. *Wind Speed Forecasting System Based on*

case study in China (<https://doi.org/10.1016/j.renene.2022.10.123>), **SCI, Renewable Energy**, 11/2022, 2/4.

125. *Multivariate selection-combination short-term wind speed forecasting system based on convolution-recurrent network and multi-objective chameleon swarm algorithm* (<https://doi.org/10.1016/j.eswa.2022.119129>), **SCI, Expert Systems with Applications**, 11/2022, 1/4.

Professional Certification and Awards

1. Special allowance granted by the State Council in 2018; In 2020, be selected as the leading talent of Dalian; Won the title of Dalian Excellent Teacher in 2017; Won the title of Excellent Instructor of Master's Degree Thesis in Liaoning Province in 2018; Lanzhou University Innovation and Entrepreneurship Action Plan "Excellent Instructor" in 2013.
2. In 2019, won the 2018 Liaoning Excellent Master's Thesis Instructor; In 2018 and 2020, won the 2018 and 2020 Dongbei University of Finance and Economics Excellent Master's Thesis Instructor; In 2018, won the second prize in Liaoning Natural Science Academic Achievement Award; Won the third prize of Jiangxi Natural Science Award in 2018; Won the second prize of the 2018 Liaoning Provincial General Higher Education Teaching Achievement Award; Won the second and third prizes of 2017 Dalian Excellent Science and Technology Achievement Award.
3. In 2017, presided over a major project of the National Social Science Foundation of China (*Research on economic loss assessment and prevention countermeasures of haze pollution in the age of big data*).
4. From 2008 to 2014, served as the head coach of mathematical modeling at Lanzhou University and guided undergraduates to win 197 mathematical modeling competitions, including (1) 18 first prizes and 38 second prizes in the American College Students' Mathematical Modeling Competition; (2) It has won 6 first prizes, 28 second prizes, 39 special prizes in Gansu Province and more than 60 other prizes in the National Undergraduate Mathematical Modeling Contest. **In addition, the winning rate of the 27th American College Students Mathematical Modeling Contest exceeded that of some famous universities in China, such as Tsinghua University.**
5. In 2016, as the head coach of mathematical modeling in the School of Statistics of Dongbei University of Finance and Economics, guided the undergraduate students of the School of Statistics to win 7 first prizes and 17 second prizes in the American Undergraduate Mathematical Modeling Contest, **with the award rate exceeding that of some famous domestic universities such as Peking University and Tsinghua University**; As the head coach of mathematical modeling of Dongbei University of Finance and Economics, in 2017, there were 117 guiding teams, winning 14 first prizes and 42 second prizes in total. In 2018, there were 86 guiding teams, winning 10 first prizes and 29 second prizes in total; In 2019, 33 teams were guided to participate, winning 3 first prizes and 8 second prizes.
6. In 2020, as the head coach of mathematical modeling at Dongbei University of Finance and Economics, led 37 teams to participate in the American Undergraduate Mathematical Modeling Contest and **won 2 Outstanding Winners (only 37 of the 20948 teams in the world won outstanding awards in 2020, with an award probability of 0.177%)**. **One team also won the ASA Title Award issued by the American Institute of Statistics (only 5 of the 20948 teams in the world won this award in 2020)**. One team won the first prize and ten teams won the second prize. The modeling contest for American college students not only cultivates students' practical ability to solve practical problems but also cultivates undergraduates' scientific and technological innovation ability.
7. **In 2020 and 2022, be selected into the list of Clarivate global highly cited researchers in interdisciplinary and engineering fields for three consecutive years; In 2019, be selected into Chinese Most Cited Researcher-Elsevier in Mathematics (93 scholars in Chinese Mainland's mathematics circle were selected in this list, and Professor Jianzhou Wang ranked third in H index). In 2020, be selected for the statistics category list of Chinese Most Cited Researcher-Elsevier (13 scholars from the statistical community of Chinese Mainland were selected in this list, and Professor Jianzhou Wang ranked second in the H index). In 2021, be selected into the statistics category list of Chinese Most Cited Researcher-Elsevier (a total of 20 scholars from the Chinese Mainland statistical community were selected in this list, and Professor Jianzhou Wang ranked third in the H index), and be selected into Stanford University's "Top 2% of the World's Top Scientists" list.**
8. The paper *A case study on a hybrid wind speed forecasting method using BP neural network* was published by the world's largest science and technology Press Elsevier, which is one of the most popular 25 (top) articles in 2013 (No. 3 in mathematics, No. 21 in engineering, and No. 22 in computer science).
9. **Main invention:** 4 computer software copyrights were approved in 2018.

Journal Editorship

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