Wen Zhong Shen

List of Publications by Year
in descending order

96 papers	3,908 citations	147801 31 h-index	128289 60 g-index
99 all docs	99 docs citations	99 times ranked	1994 citing authors

#	Article	IF	Citations
1	A review: Approaches for aerodynamic performance improvement of lift-type vertical axis wind turbine. Sustainable Energy Technologies and Assessments, 2022, 49, 101789.	2.7	26
2	A new multi-fidelity flow-acoustics simulation framework for wind farm application. Renewable and Sustainable Energy Reviews, 2022, 156, 111939.	16.4	4
3	A new three-dimensional analytical model for wind turbine wake turbulence intensity predictions. Renewable Energy, 2022, 189, 762-776.	8.9	14
4	Research on Unsteady Wake Characteristics of the NREL 5MW Wind Turbine Under Yaw Conditions Based on a LBM-LES Method. Frontiers in Energy Research, 2022, 10, .	2.3	3
5	Researches on vortex generators applied to wind turbines: A review. Ocean Engineering, 2022, 253, 111266.	4.3	31
6	New measurement technique for ground acoustic impedance in wind farm. Renewable Energy, 2021, 164, 791-803.	8.9	3
7	Investigation of wake characteristics of the MEXICO wind turbine using lattice Boltzmann method. Wind Energy, 2021, 24, 116-132.	4.2	7
8	Modelling the nacelle wake of a horizontal-axis wind turbine under different yaw conditions. Renewable Energy, 2021, 172, 263-275.	8.9	34
9	Special Issue on Wind Turbine Aerodynamics II. Applied Sciences (Switzerland), 2021, 11, 8728.	2.5	0
10	Numerical Simulations of Novel Conning Designs for Future Super-Large Wind Turbines. Applied Sciences (Switzerland), 2021, 11, 147.	2.5	1
11	Editorial: Towards Innovation in Next Generation of Wind Turbine Rotor Design. Frontiers in Energy Research, 2021, 9, .	2.3	2
12	Numerical investigations into the idealized diurnal cycle of atmospheric boundary layer and its impact on wind turbine's powerÂperformance. Renewable Energy, 2020, 145, 419-427.	8.9	18
13	A tip loss correction model for wind turbine aerodynamic performance prediction. Renewable Energy, 2020, 147, 223-238.	8.9	24
14	A new wake model and comparison of eight algorithms for layout optimization of wind farms in complex terrain. Applied Energy, 2020, 259, 114189.	10.1	65
15	Aerodynamic Analysis of Coning Effects on the DTU 10 MW Wind Turbine Rotor. Energies, 2020, 13, 5753.	3.1	5
16	Effects of turbulence modelling in AD/RANS simulations of single wind & tidal turbine wakes and double wake interactions. Energy, 2020, 208, 118440.	8.8	16
17	Validation of noise propagation models against detailed flow and acoustic measurements. Journal of Physics: Conference Series, 2020, 1618, 052023.	0.4	2
18	Development of an Advanced Fluid-Structure-Acoustics Framework for Predicting and Controlling the Noise Emission from a Wind Turbine under Wind Shear and Yaw. Applied Sciences (Switzerland), 2020, 10, 7610.	2.5	3

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19	Optimizing wind energy conversion efficiency with respect to noise: A study on multi-criteria wind farm layout design. Renewable Energy, 2020, 159, 468-485.	8.9	15
20	An Improved Power Control Approach for Wind Turbine Fatigue Balancing in an Offshore Wind Farm. Energies, 2020, 13, 1549.	3.1	3
21	Ventilation in pumped storage power stations: Influence of dehumidifiers in an underground tunnel. Applied Thermal Engineering, 2020, 172, 115162.	6.0	8
22	Similarity functions and a new kâ˜Îµ closure for predicting stratified atmospheric surface layer flows in complex terrain. Renewable Energy, 2020, 150, 907-917.	8.9	4
23	Noise Propagation Calculations of a Wind Turbine in Complex Terrain. Journal of Physics: Conference Series, 2020, 1452, 012063.	0.4	3
24	Development of a streamline wake model for wind farm performance predictions. Journal of Physics: Conference Series, 2020, 1618, 062027.	0.4	0
25	A New Method of Determination of the Angle of Attack on Rotating Wind Turbine Blades. Energies, 2019, 12, 4012.	3.1	7
26	Advanced flow and noise simulation method for wind farm assessment in complex terrain. Renewable Energy, 2019, 143, 1812-1825.	8.9	22
27	Special Issue on Wind Turbine Aerodynamics. Applied Sciences (Switzerland), 2019, 9, 1725.	2.5	3
28	Development of an Efficient Numerical Method for Wind Turbine Flow, Sound Generation, and Propagation under Multi-Wake Conditions. Applied Sciences (Switzerland), 2019, 9, 100.	2.5	3
29	Numerical simulation and performance optimization of the centrifugal fan in a vacuum cleaner. Modern Physics Letters B, 2019, 33, 1950440.	1.9	5
30	AD/RANS Simulations of Wind Turbine Wake Flow Employing the RSM Turbulence Model: Impact of Isotropic and Anisotropic Inflow Conditions. Energies, 2019, 12, 4026.	3.1	5
31	Evaluation of Tip Loss Corrections to AD/NS Simulations of Wind Turbine Aerodynamic Performance. Applied Sciences (Switzerland), 2019, 9, 4919.	2.5	9
32	Moninâ€“Obukhov Similarity Theory for Modeling of Wind Turbine Wakes under Atmospheric Stable Conditions: Breakdown and Modifications. Applied Sciences (Switzerland), 2019, 9, 4256.	2.5	3
33	Variability of wind turbine noise over a diurnal cycle. Renewable Energy, 2018, 126, 791-800.	8.9	10
34	Atmospheric stability and topography effects on wind turbine performance and wake properties in complex terrain. Renewable Energy, 2018, 126, 640-651.	8.9	54
35	Wind turbine noise generation and propagation modeling at DTU Wind Energy: A review. Renewable and Sustainable Energy Reviews, 2018, 88, 133-150.	16.4	35
36	Evaluation of different methods for determining the angle of attack on wind turbine blades with CFD results under axial inflow conditions. Renewable Energy, 2018, 125, 866-876.	8.9	64

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37	An Optimization Framework for Wind Farm Design in Complex Terrain. Applied Sciences (Switzerland), 2018, 8, 2053.	2.5	32
38	CFD Simulations of Flows in a Wind Farm in Complex Terrain and Comparisons to Measurements. Applied Sciences (Switzerland), 2018, 8, 788.	2.5	32
39	Evaluation of the Power-Law Wind-Speed Extrapolation Method with Atmospheric Stability Classification Methods for Flows over Different Terrain Types. Applied Sciences (Switzerland), 2018, 8, 1429.	2.5	12
40	Assessment of inflow boundary conditions for RANS simulations of neutral ABL and wind turbine wake flow. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 179, 215-228.	3.9	12
41	Variable Pitch Approach for Performance Improving of Straight-Bladed VAWT at Rated Tip Speed Ratio. Applied Sciences (Switzerland), 2018, 8, 957.	2.5	21
42	Development of a CFD-Based Wind Turbine Rotor Optimization Tool in Considering Wake Effects. Applied Sciences (Switzerland), 2018, 8, 1056.	2.5	8
43	Aero-structural optimization of wind turbine blades using a reduced set of design load cases including turbulence. Journal of Physics: Conference Series, 2018, 1037, 042018.	0.4	1
44	LES simulation and experimental validation of the unsteady aerodynamics of blunt wind turbine airfoils. Energy, 2018, 158, 911-923.	8.8	13
45	Improved fixed point iterative method for blade element momentum computations. Wind Energy, 2017, 20, 1585-1600.	4.2	7
46	Effects of wind turbine wake on atmospheric sound propagation. Applied Acoustics, 2017, 122, 51-61.	3.3	32
47	Modeling of wind turbine vortex generators in considering the inter-effects between arrays. Journal of Renewable and Sustainable Energy, 2017, 9, .	2.0	12
48	Design optimization of offshore wind farms with multiple types of wind turbines. Applied Energy, 2017, 205, 1283-1297.	10.1	86
49	Study on variable pitch strategy in H-type wind turbine considering effect of small angle of attack. Journal of Renewable and Sustainable Energy, 2017, 9, .	2.0	18
50	Verification of a novel innovative blade root design for wind turbines using a hybrid numerical method. Energy, 2017, 141, 1661-1670.	8.8	4
51	Wind farm power production in the changing wind: Robustness quantification and layout optimization. Energy Conversion and Management, 2017, 148, 905-914.	9.2	49
52	Prediction of multi-wake problems using an improved Jensen wake model. Renewable Energy, 2017, 102, 457-469.	8.9	46
53	Consistent modelling of wind turbine noise propagation from source to receiver. Journal of the Acoustical Society of America, 2017, 142, 3297-3310.	1.1	48
54	Design of the OffWindChina 5 MW Wind Turbine Rotor. Energies, 2017, 10, 777.	3.1	11

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55	10.1121/1.5012747.1. , 2017, , .		0
56	Large Wind Turbine Rotor Design using an Aero-Elastic / Free-Wake Panel Coupling Code. Journal of Physics: Conference Series, 2016, 753, 042017.	0.4	2
57	Improved blade element momentum theory for wind turbine aerodynamic computations. Renewable Energy, 2016, 96, 824-831.	8.9	30
58	Multi-Objective Random Search Algorithm for Simultaneously Optimizing Wind Farm Layout and Number of Turbines. Journal of Physics: Conference Series, 2016, 753, 032011.	0.4	16
59	Improvement of airfoil trailing edge bluntness noise model. Advances in Mechanical Engineering, 2016, 8, 168781401662934.	1.6	17
60	Three-dimensional viscous-inviscid coupling method for wind turbine computations. Wind Energy, 2016, 19, 67-93.	4.2	37
61	Aerodynamic wind-turbine rotor design using surrogate modeling and three-dimensional viscousâ€“inviscid interaction technique. Renewable Energy, 2016, 93, 620-635.	8.9	33
62	Development and validation of a new two-dimensional wake model for wind turbine wakes. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 137, 90-99.	3.9	118
63	Solving the wind farm layout optimization problem using random search algorithm. Renewable Energy, 2015, 78, 182-192.	8.9	166
64	Modelling Wind for Wind Farm Layout Optimization Using Joint Distribution of Wind Speed and Wind Direction. Energies, 2015, 8, 3075-3092.	3.1	56
65	Denmark Wind Energy Programme. , 2015, , 941-949.		0
66	A strong viscous-inviscid interaction model for rotating airfoils. Wind Energy, 2014, 17, 1957-1984.	4.2	32
67	Validation of a three-dimensional viscousâ€“inviscid interactive solver for wind turbine rotors. Renewable Energy, 2014, 70, 78-92.	8.9	20
68	Integrated airfoil and blade design method for large wind turbines. Renewable Energy, 2014, 70, 172-183.	8.9	45
69	Design and validation of the high performance and low noise CQU-DTU-LN1 airfoils. Wind Energy, 2014, 17, 1817-1833.	4.2	26
70	Prediction of the wind turbine performance by using BEM with airfoil data extracted from CFD. Renewable Energy, 2014, 70, 107-115.	8.9	64
71	Hybrid Immersed Boundary Method for Airfoils with a Trailing-Edge Flap. AIAA Journal, 2013, 51, 30-41.	2.6	16
72	Effect of non-uniform mean flow field on acoustic propagation problems in computational aeroacoustics. Aerospace Science and Technology, 2013, 28, 145-153.	4.8	6

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73	Structural optimization study of composite wind turbine blade. Materials & Design, 2013, 46, 247-255.	5.1	62
74	Investigation of load prediction on the Mexico rotor using the technique of determination of the angle of attack. Chinese Journal of Mechanical Engineering (English Edition), 2012, 25, 506-514.	3.7	2
75	Fatigue distribution optimization for offshore wind farms using intelligent agent control. Wind Energy, 2012, 15, 927-944.	4.2	35
76	Actuator line/Navierâ€“Stokes computations for the MEXICO rotor: comparison with detailed measurements. Wind Energy, 2012, 15, 811-825.	4.2	102
77	Extraction of airfoil data using PIV and pressure measurements. Wind Energy, 2011, 14, 539-556.	4.2	13
78	Highâ€order numerical simulations of flowâ€induced noise. International Journal for Numerical Methods in Fluids, 2011, 66, 17-37.	1.6	15
79	Aeroacoustic Computations for Turbulent Airfoil Flows. AIAA Journal, 2009, 47, 1518-1527.	2.6	23
80	Determination of the angle of attack on rotor blades. Wind Energy, 2009, 12, 91-98.	4.2	78
81	Shape optimization of wind turbine blades. Wind Energy, 2009, 12, 781-803.	4.2	140
82	The Actuator Surface Model: A New Navierâ€“Stokes Based Model for Rotor Computations. Journal of Solar Energy Engineering, Transactions of the ASME, 2009, 131, .	1.8	102
83	Multi-Agent Model for Fatigue Control in Large Offshore Wind Farm. , 2008, , .		3
84	The influence of imperfections on the flow structure of steady vortex breakdown bubbles. Journal of Fluid Mechanics, 2007, 578, 453-466.	3.4	23
85	Wall Correction Model for Wind Tunnels with Open Test Section. AIAA Journal, 2006, 44, 1890-1894.	2.6	36
86	An Aerodynamic Noise Propagation Model for Wind Turbines. Wind Engineering, 2005, 29, 129-141.	1.9	5
87	Modeling of Aerodynamically Generated Noise From Wind Turbines. Journal of Solar Energy Engineering, Transactions of the ASME, 2005, 127, 517-528.	1.8	79
88	Tip loss corrections for wind turbine computations. Wind Energy, 2005, 8, 457-475.	4.2	325
89	Tip Loss Correction for Actuator/Navierâ€“Stokes Computations. Journal of Solar Energy Engineering, Transactions of the ASME, 2005, 127, 209-213.	1.8	78
90	A collocated grid finite volume method for aeroacoustic computations of low-speed flows. Journal of Computational Physics, 2004, 196, 348-366.	3.8	28

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91	Vorticity-velocity formulation of the 3D Navier-Stokes equations in cylindrical co-ordinates. International Journal for Numerical Methods in Fluids, 2003, 41, 29-45.	1.6	10
92	AN IMPROVED SIMPLEC METHOD ON COLLOCATED GRIDS FOR STEADY AND UNSTEADY FLOW COMPUTATIONS. Numerical Heat Transfer, Part B: Fundamentals, 2003, 43, 221-239.	0.9	48
93	Numerical Modeling of Wind Turbine Wakes. Journal of Fluids Engineering, Transactions of the ASME, 2002, 124, 393-399.	1.5	842
94	Improved Rhie-Chow Interpolation for Unsteady Flow Computations. AIAA Journal, 2001, 39, 2406-2409.	2.6	100
95	Aeroacoustic Modelling of Low-Speed Flows. Theoretical and Computational Fluid Dynamics, 1999, 13, 271-289.	2.2	78
96	Quasi-3D Navierâ€“Stokes Model for a Rotating Airfoil. Journal of Computational Physics, 1999, 150, 518-548.	3.8	38