

Simon J Watson

List of Publications by Year in descending order

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Version: 2024-02-01

87
papers

2,449
citations

304743

22
h-index

214800

47
g-index

94
all docs

94
docs citations

94
times ranked

2386
citing authors

#	ARTICLE	IF	CITATIONS
1	The effect of the fatigue damage accumulation process on the damping and stiffness properties of adhesively bonded composite structures. <i>Composite Structures</i> , 2022, 287, 115328.	5.8	8
2	Wind turbine blade trailing edge crack detection based on airfoil aerodynamic noise: An experimental study. <i>Applied Acoustics</i> , 2022, 191, 108668.	3.3	9
3	Wind turbine drivetrains: state-of-the-art technologies and future development trends. <i>Wind Energy Science</i> , 2022, 7, 387-411.	3.3	44
4	Wind turbine gearbox fault prognosis using high-frequency SCADA data. <i>Journal of Physics: Conference Series</i> , 2022, 2265, 032067.	0.4	3
5	Mesoscale modeling of a "Dunkelflaute" event. <i>Wind Energy</i> , 2021, 24, 5-23.	4.2	7
6	Wind Energy flips to Open Access. <i>Wind Energy</i> , 2021, 24, 309-309.	4.2	0
7	Associating Synoptic-Scale Weather Patterns with Aggregated Offshore Wind Power Production and Ramps. <i>Energies</i> , 2021, 14, 3903.	3.1	6
8	A Brief Climatology of Dunkelflaute Events over and Surrounding the North and Baltic Sea Areas. <i>Energies</i> , 2021, 14, 6508.	3.1	8
9	Probabilistic wind power forecasting combining deep learning architectures. , 2020, , .		0
10	The impact of weather patterns on offshore wind power production. <i>Journal of Physics: Conference Series</i> , 2020, 1618, 062032.	0.4	3
11	Quantifying the Predictability of a "Dunkelflaute"™ Event by Utilizing a Mesoscale Model. <i>Journal of Physics: Conference Series</i> , 2020, 1618, 062042.	0.4	4
12	Day-ahead Wind Power Predictions at Regional Scales: Post-processing Operational Weather Forecasts with a Hybrid Neural Network. , 2020, , .		1
13	Automated wind turbine maintenance scheduling. <i>Reliability Engineering and System Safety</i> , 2020, 200, 106965.	8.9	15
14	Clustering wind profile shapes to estimate airborne wind energy production. <i>Wind Energy Science</i> , 2020, 5, 1097-1120.	3.3	11
15	A simple methodology to detect and quantify wind power ramps. <i>Wind Energy Science</i> , 2020, 5, 1731-1741.	3.3	4
16	Characterisation of fatigue damage in a thick adhesive joint based on changes in material damping. <i>Journal of Physics: Conference Series</i> , 2020, 1618, 022058.	0.4	2
17	Sensitivity study of a wind farm maintenance decision - A performance and revenue analysis. <i>Renewable Energy</i> , 2019, 132, 93-105.	8.9	16
18	Future emerging technologies in the wind power sector: A European perspective. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 113, 109270.	16.4	140

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19	Airborne wind energy resource analysis. <i>Renewable Energy</i> , 2019, 141, 1103-1116.	8.9	63
20	An Effective Approach for Rotor Electrical Asymmetry Detection in Wind Turbine DFIGs. <i>IEEE Transactions on Industrial Electronics</i> , 2018, 65, 8872-8881.	7.9	47
21	Atmospheric gravity wave impacts on an offshore wind farm. <i>Journal of Physics: Conference Series</i> , 2018, 1037, 072050.	0.4	3
22	Modelling Uncertainty in t-RANS Simulations of Thermally Stratified Forest Canopy Flows for Wind Energy Studies. <i>Energies</i> , 2018, 11, 1703.	3.1	2
23	Modelling turbulence intensity within a large offshore wind farm. <i>Wind Energy</i> , 2018, 21, 1329-1343.	4.2	27
24	Statistical Evaluation of SCADA data for Wind Turbine Condition Monitoring and Farm Assessment. <i>Journal of Physics: Conference Series</i> , 2018, 1037, 032038.	0.4	7
25	Modelling the wind energy resource in complex terrain and atmospheres. Numerical simulation and wind tunnel investigation of non-neutral forest canopy flow. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2017, 166, 48-60.	3.9	14
26	Using SCADA data for wind turbine condition monitoring – a review. <i>IET Renewable Power Generation</i> , 2017, 11, 382-394.	3.1	259
27	Offshore Turbine Wake Power Losses: Is Turbine Separation Significant?. <i>Energy Procedia</i> , 2017, 137, 134-142.	1.8	1
28	Optimisation of Data Acquisition in Wind Turbines with Data-Driven Conversion Functions for Sensor Measurements. <i>Energy Procedia</i> , 2017, 137, 571-578.	1.8	6
29	The Financial Benefits of Various Catastrophic Failure Prevention Strategies in a Wind Farm: Two market studies (UK-Spain). <i>Journal of Physics: Conference Series</i> , 2017, 926, 012014.	0.4	1
30	Preliminary assessment of the variability of UK offshore wind speed as a function of distance to the coast. <i>Journal of Physics: Conference Series</i> , 2016, 749, 012004.	0.4	0
31	Stator winding fault diagnosis in synchronous generators for wind turbine applications. , 2016, , .		4
32	Effect of power converter on condition monitoring and fault detection for wind turbine. , 2016, , .		7
33	Sustainable Design and Operation for Renewable EnergyA PV Case Study. , 2016, , .		0
34	Condition monitoring of permanent magnet synchronous generator for wind turbine applications. , 2016, , .		2
35	Feasibility of a fully autonomous wireless monitoring system for a wind turbine blade. <i>Renewable Energy</i> , 2016, 97, 89-96.	8.9	22
36	Review of pulsed power for efficient hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 7782-7791.	7.1	26

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37	On the Effects of Directional Bin Size When Simulating Large Offshore Wind Farms with CFD. Wind Engineering, 2015, 39, 641-650.	1.9	0
38	Wind speed variability across the UK between 1957 and 2011. Wind Energy, 2015, 18, 21-42.	4.2	19
39	Integration of Low-cost Consumer Electronics for In-situ Condition Monitoring of Wind Turbine Blades. , 2014, , .		2
40	A study on the inclusion of forest canopy morphology data in numerical simulations for the purpose of wind resource assessment. Journal of Wind Engineering and Industrial Aerodynamics, 2014, 126, 24-37.	3.9	22
41	Quantifying the variability of wind energy. Wiley Interdisciplinary Reviews: Energy and Environment, 2014, 3, 330-342.	4.1	32
42	Assessing the dependence of surface layer atmospheric stability on measurement height at offshore locations. Journal of Wind Engineering and Industrial Aerodynamics, 2014, 131, 88-99.	3.9	18
43	A study of stability effects in forested terrain. Journal of Physics: Conference Series, 2014, 555, 012027.	0.4	3
44	A comparison of actuator disc and BEM models in CFD simulations for the prediction of offshore wake losses. Journal of Physics: Conference Series, 2014, 524, 012148.	0.4	9
45	Analysis of electrical power data for condition monitoring of a small wind turbine. IET Renewable Power Generation, 2013, 7, 341-349.	3.1	16
46	Stall-regulated variable-speed wind turbine Simulink model. , 2013, , .		2
47	Power optimization for a variable-speed stall-regulated wind-turbine using scalar control. , 2013, , .		0
48	Performance analysis of indirect vector control algorithm for small-sized wind turbine induction generator. Energy Procedia, 2012, 14, 964-970.	1.8	3
49	Utilizing a Risk-Based Systems Approach in the Due Diligence Process for Renewable Energy Generation. IEEE Systems Journal, 2011, 5, 223-232.	4.6	8
50	Preliminary study of the offshore wind and temperature profiles at the North of the Yucatán Peninsula. Energy Conversion and Management, 2011, 52, 2829-2843.	9.2	5
51	Alkaline electrolyzers: Model and real data analysis. International Journal of Hydrogen Energy, 2011, 36, 7956-7962.	7.1	26
52	The variability of future combined wind and marine power in the UK. , 2011, , .		0
53	Physics of Failure approach to wind turbine condition based maintenance. Wind Energy, 2010, 13, 395-405.	4.2	97
54	Wind characteristics on the Yucatán Peninsula based on short term data from meteorological stations. Energy Conversion and Management, 2010, 51, 754-764.	9.2	20

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55	Low-cost mounting arrangements for building-integrated wind turbines. <i>Wind Energy</i> , 2010, 13, 657-669.	4.2	2
56	A Comparison of Long-Term Wind Speed Forecasting Models. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2010, 132, .	1.8	9
57	Condition Monitoring of the Power Output of Wind Turbine Generators Using Wavelets. <i>IEEE Transactions on Energy Conversion</i> , 2010, 25, 715-721.	5.2	159
58	Power Limitation at High Wind Speeds for a Variable Speed Fixed Pitch Wind Turbine Using Closed-Loop Scalar Control. <i>Renewable Energy and Power Quality Journal</i> , 2010, 1, 1043-1046.	0.2	3
59	Long-Term Wind Speed Forecasting Based on Seasonal Trends. , 2009, , .		0
60	Evaluation of the Wind Shear at a Site in the North-West of the Yucatan Peninsula, Mexico. <i>Wind Engineering</i> , 2009, 33, 93-107.	1.9	9
61	Preliminary study of long-term wind characteristics of the Mexican Yucatán Peninsula. <i>Energy Conversion and Management</i> , 2009, 50, 1773-1780.	9.2	11
62	Surface passivation by silicon nitride in Laser Grooved Buried Contact (LGBC) silicon solar cells. <i>Superlattices and Microstructures</i> , 2009, 45, 234-239.	3.1	3
63	Reliability analysis for wind turbines with incomplete failure data collected from after the date of initial installation. <i>Reliability Engineering and System Safety</i> , 2009, 94, 1057-1063.	8.9	125
64	Wind turbine availability analysis based on statistical data. , 2009, , .		3
65	Smart Monitoring of Wind Turbines Using Neural Networks. , 2009, , 1-8.		10
66	Developing a Knowledge-Based System Using Rough Set Theory and Genetic Algorithms for Substation Fault Diagnosis. <i>Studies in Computational Intelligence</i> , 2009, , 279-320.	0.9	3
67	Assessment of Condition Monitoring Techniques for Offshore Wind Farms. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2008, 130, .	1.8	82
68	Wind Resource Assessment for the Kingdom of Bahrain. <i>Wind Engineering</i> , 2008, 32, 439-448.	1.9	18
69	Modelling of the Performance of a Building-Mounted Ducted Wind Turbine. <i>Journal of Physics: Conference Series</i> , 2007, 75, 012001.	0.4	24
70	Building Knowledge for Substation-Based Decision Support Using Rough Sets. <i>IEEE Transactions on Power Delivery</i> , 2007, 22, 1372-1379.	4.3	45
71	Estimating the potential yield of small building-mounted wind turbines. <i>Wind Energy</i> , 2007, 10, 271-287.	4.2	88
72	Daily Load Forecasting and Maximum Demand Estimation using ARIMA and GARCH. , 2006, , .		45

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73	Validation of wind speed prediction methods at offshore sites. <i>Wind Energy</i> , 2006, 9, 75-85.	4.2	18
74	Comparison of electrical energy efficiency of atmospheric and high-pressure electrolysers. <i>International Journal of Hydrogen Energy</i> , 2006, 31, 1964-1979.	7.1	154
75	Application of a Monte Carlo Simulation Method for Predicting Voltage Regulation on Low-Voltage Networks. <i>IEEE Transactions on Power Systems</i> , 2005, 20, 279-285.	6.5	8
76	Analyzing the Impact of Weather Variables on Monthly Electricity Demand. <i>IEEE Transactions on Power Systems</i> , 2005, 20, 2078-2085.	6.5	210
77	Power Curve Characterization II. Modelling Using Polynomial Regression. <i>Renewable Energy and Power Quality Journal</i> , 2005, 1, 363-366.	0.2	2
78	Power Curve Characterization I: Improving the Bin Method. <i>Renewable Energy and Power Quality Journal</i> , 2005, 1, 367-371.	0.2	11
79	Monte Carlo Simulation of Residential Electricity Demand for Forecasting Maximum Demand on Distribution Networks. <i>IEEE Transactions on Power Systems</i> , 2004, 19, 1685-1689.	6.5	82
80	Identifying the Effect of Tidal Height on Offshore Wind Speed Profiles. <i>Wind Energy</i> , 2003, 6, 405-412.	4.2	5
81	Simulation of Power Quality in Residential Electricity Networks. <i>Renewable Energy and Power Quality Journal</i> , 2003, 1, 620-627.	0.2	3
82	The Impact of the Anomalous Weather of 1995 on the U.K. Economy. <i>Climatic Change</i> , 2000, 44, 1-26.	3.6	48
83	A new matrix method of predicting long-term wind roses with MCP. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 1997, 66, 85-94.	3.9	36
84	The Optimisation of Renewable Energy Sources in an Electrical Power System by Use of Simulation and Deterministic Planning Models. <i>International Transactions in Operational Research</i> , 1996, 3, 255-269.	2.7	10
85	Short-term prediction of local wind conditions. <i>Boundary-Layer Meteorology</i> , 1994, 70, 171-195.	2.3	85
86	Application of wind speed forecasting to the integration of wind energy into a large scale power system. <i>IET Generation, Transmission and Distribution</i> , 1994, 141, 357.	1.1	65
87	Photofission and photoneutron measurements on ²⁴¹ Am between 5 and 10 MeV. <i>Nuclear Physics A</i> , 1992, 548, 365-373.	1.5	12