Simon J Watson

List of Publications by Year
in descending order

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	Using SCADA data for wind turbine condition monitoring – a review. IET Renewable Power Generation, 2017, 11, 382-394.	3.1	259
2	Analyzing the Impact of Weather Variables on Monthly Electricity Demand. IEEE Transactions on Power Systems, 2005, 20, 2078-2085.	6.5	210
3	Condition Monitoring of the Power Output of Wind Turbine Generators Using Wavelets. IEEE Transactions on Energy Conversion, 2010, 25, 715-721.	5.2	159
4	Comparison of electrical energy efficiency of atmospheric and high-pressure electrolysers. International Journal of Hydrogen Energy, 2006, 31, 1964-1979.	7.1	154
5	Future emerging technologies in the wind power sector: A European perspective. Renewable and Sustainable Energy Reviews, 2019, 113, 109270.	16.4	140
6	Reliability analysis for wind turbines with incomplete failure data collected from after the date of initial installation. Reliability Engineering and System Safety, 2009, 94, 1057-1063.	8.9	125
7	Physics of Failure approach to wind turbine condition based maintenance. Wind Energy, 2010, 13, 395-405.	4.2	97
8	Estimating the potential yield of small building-mounted wind turbines. Wind Energy, 2007, 10, 271-287.	4.2	88
9	Short-term prediction of local wind conditions. Boundary-Layer Meteorology, 1994, 70, 171-195.	2.3	85
10	Monte Carlo Simulation of Residential Electricity Demand for Forecasting Maximum Demand on Distribution Networks. IEEE Transactions on Power Systems, 2004, 19, 1685-1689.	6.5	82
11	Assessment of Condition Monitoring Techniques for Offshore Wind Farms. Journal of Solar Energy Engineering, Transactions of the ASME, 2008, 130, .	1.8	82
12	Application of wind speed forecasting to the integration of wind energy into a large scale power system. IET Generation, Transmission and Distribution, 1994, 141, 357.	1.1	65
13	Airborne wind energy resource analysis. Renewable Energy, 2019, 141, 1103-1116.	8.9	63
14	The Impact of the Anomalous Weather of 1995 on the U.K. Economy. Climatic Change, 2000, 44, 1-26.	3.6	48
15	An Effective Approach for Rotor Electrical Asymmetry Detection in Wind Turbine DFIGs. IEEE Transactions on Industrial Electronics, 2018, 65, 8872-8881.	7.9	47
16	Daily Load Forecasting and Maximum Demand Estimation using ARIMA and GARCH. , 2006, , .		45
17	Building Knowledge for Substation-Based Decision Support Using Rough Sets. IEEE Transactions on Power Delivery, 2007, 22, 1372-1379.	4.3	45
18	Wind turbine drivetrains: state-of-the-art technologies and future development trends. Wind Energy Science, 2022, 7, 387-411.	3.3	44

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19	A new matrix method of predicting long-term wind roses with MCP. Journal of Wind Engineering and Industrial Aerodynamics, 1997, 66, 85-94.	3.9	36
20	Quantifying the variability of wind energy. Wiley Interdisciplinary Reviews: Energy and Environment, 2014, 3, 330-342.	4.1	32
21	Modelling turbulence intensity within a large offshore wind farm. Wind Energy, 2018, 21, 1329-1343.	4.2	27
22	Alkaline electrolysers: Model and real data analysis. International Journal of Hydrogen Energy, 2011, 36, 7956-7962.	7.1	26
23	Review of pulsed power for efficient hydrogen production. International Journal of Hydrogen Energy, 2016, 41, 7782-7791.	7.1	26
24	Modelling of the Performance of a Building-Mounted Ducted Wind Turbine. Journal of Physics: Conference Series, 2007, 75, 012001.	0.4	24
25	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
26	Feasibility of a fully autonomous wireless monitoring system for a wind turbine blade. Renewable Energy, 2016, 97, 89-96.	8.9	22
27	Wind characteristics on the YucatÃ¡n Peninsula based on short term data from meteorological stations. Energy Conversion and Management, 2010, 51, 754-764.	9.2	20
28	Wind speed variability across the UK between 1957 and 2011. Wind Energy, 2015, 18, 21-42.	4.2	19
29	Validation of wind speed prediction methods at offshore sites. Wind Energy, 2006, 9, 75-85.	4.2	18
30	Wind Resource Assessment for the Kingdom of Bahrain. Wind Engineering, 2008, 32, 439-448.	1.9	18
31	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
32	Analysis of electrical power data for condition monitoring of a small wind turbine. IET Renewable Power Generation, 2013, 7, 341-349.	3.1	16
33	Sensitivity study of a wind farm maintenance decision - A performance and revenue analysis. Renewable Energy, 2019, 132, 93-105.	8.9	16
34	Automated wind turbine maintenance scheduling. Reliability Engineering and System Safety, 2020, 200, 106965.	8.9	15
35	Modelling the wind energy resource in complex terrain and atmospheres. Numerical simulation and wind tunnel investigation of non-neutral forest canopy flow. Journal of Wind Engineering and Industrial Aerodynamics, 2017, 166, 48-60.	3.9	14
36	Photofission and photoneutron measurements on 241Am between 5 and 10 MeV. Nuclear Physics A, 1992, 548, 365-373.	1.5	12

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37	Preliminary study of long-term wind characteristics of the Mexican YucatÃ¡n Peninsula. Energy Conversion and Management, 2009, 50, 1773-1780.	9.2	11
38	Power Curve Characterization I: Improving the Bin Method. Renewable Energy and Power Quality Journal, 2005, 1, 367-371.	0.2	11
39	Clustering wind profile shapes to estimate airborne wind energy production. Wind Energy Science, 2020, 5, 1097-1120.	3.3	11
40	The Optimisation of Renewable Energy Sources in an Electrical Power System by Use of Simulation and Deterministic Planning Models. International Transactions in Operational Research, 1996, 3, 255-269.	2.7	10
41	Smart Monitoring of Wind Turbines Using Neural Networks. , 2009, , 1-8.		10
42	Evaluation of the Wind Shear at a Site in the North-West of the Yucatan Peninsula, Mexico. Wind Engineering, 2009, 33, 93-107.	1.9	9
43	A Comparison of Long-Term Wind Speed Forecasting Models. Journal of Solar Energy Engineering, Transactions of the ASME, 2010, 132, .	1.8	9
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	Wind turbine blade trailing edge crack detection based on airfoil aerodynamic noise: An experimental study. Applied Acoustics, 2022, 191, 108668.	3.3	9
46	Application of a Monte Carlo Simulation Method for Predicting Voltage Regulation on Low-Voltage Networks. IEEE Transactions on Power Systems, 2005, 20, 279-285.	6.5	8
47	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
48	A Brief Climatology of Dunkelflaute Events over and Surrounding the North and Baltic Sea Areas. Energies, 2021, 14, 6508.	3.1	8
49	The effect of the fatigue damage accumulation process on the damping and stiffness properties of adhesively bonded composite structures. Composite Structures, 2022, 287, 115328.	5.8	8
50	Effect of power converter on condition monitoring and fault detection for wind turbine. , 2016, , .		7
51	Statistical Evaluation of SCADA data for Wind Turbine Condition Monitoring and Farm Assessment. Journal of Physics: Conference Series, 2018, 1037, 032038.	0.4	7
52	Mesoscale modeling of a â€œDunkelflauteâ€•event. Wind Energy, 2021, 24, 5-23.	4.2	7
53	Optimisation of Data Acquisition in Wind Turbines with Data-Driven Conversion Functions for Sensor Measurements. Energy Procedia, 2017, 137, 571-578.	1.8	6
54	Associating Synoptic-Scale Weather Patterns with Aggregated Offshore Wind Power Production and Ramps. Energies, 2021, 14, 3903.	3.1	6

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55	Identifying the Effect of Tidal Height on Offshore Wind Speed Profiles. Wind Energy, 2003, 6, 405-412.	4.2	5
56	Preliminary study of the offshore wind and temperature profiles at the North of the YucatÃ¡n Peninsula. Energy Conversion and Management, 2011, 52, 2829-2843.	9.2	5
57	Stator winding fault diagnosis in synchronous generators for wind turbine applications. , 2016, , .		4
58	Quantifying the Predictability of a â€˜Dunkelflauteâ€™ Event by Utilizing a Mesoscale Model. Journal of Physics: Conference Series, 2020, 1618, 062042.	0.4	4
59	A simple methodology to detect and quantify wind power ramps. Wind Energy Science, 2020, 5, 1731-1741.	3.3	4
60	Surface passivation by silicon nitride in Laser Grooved Buried Contact (LGBC) silicon solar cells. Superlattices and Microstructures, 2009, 45, 234-239.	3.1	3
61	Wind turbine availability analysis based on statistical data. , 2009, , .		3
62	Performance analysis of indirect vector control algorithm for small-sized wind turbine induction generator. Energy Procedia, 2012, 14, 964-970.	1.8	3
63	A study of stability effects in forested terrain. Journal of Physics: Conference Series, 2014, 555, 012027.	0.4	3
64	Atmospheric gravity wave impacts on an offshore wind farm. Journal of Physics: Conference Series, 2018, 1037, 072050.	0.4	3
65	The impact of weather patterns on offshore wind power production. Journal of Physics: Conference Series, 2020, 1618, 062032.	0.4	3
66	Simulation of Power Quality in Residencial Electricity Networks. Renewable Energy and Power Quality Journal, 2003, 1, 620-627.	0.2	3
67	Power Limitation at High Wind Speeds for a Variable Speed Fixed Pitch Wind Turbine Using Closed-Loop Scalar Control. Renewable Energy and Power Quality Journal, 2010, 1, 1043-1046.	0.2	3
68	Developing a Knowledge-Based System Using Rough Set Theory and Genetic Algorithms for Substation Fault Diagnosis. Studies in Computational Intelligence, 2009, , 279-320.	0.9	3
69	Wind turbine gearbox fault prognosis using high-frequency SCADA data. Journal of Physics: Conference Series, 2022, 2265, 032067.	0.4	3
70	Low-cost mounting arrangements for building-integrated wind turbines. Wind Energy, 2010, 13, 657-669.	4.2	2
71	Stall-regulated variable-speed wind turbine Simulink model. , 2013, , .		2
72	Integration of Low-cost Consumer Electronics for In-situ Condition Monitoring of Wind Turbine Blades. , 2014, , .		2

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73	Condition monitoring of permanent magnet synchronous generator for wind turbine applications. , 2016, , .		2
74	Modelling Uncertainty in t-RANS Simulations of Thermally Stratified Forest Canopy Flows for Wind Energy Studies. Energies, 2018, 11, 1703.	3.1	2
75	Power Curve Characterization II. Modelling Using Polynomial Regression. Renewable Energy and Power Quality Journal, 2005, 1, 363-366.	0.2	2
76	Characterisation of fatigue damage in a thick adhesive joint based on changes in material damping. Journal of Physics: Conference Series, 2020, 1618, 022058.	0.4	2
77	Offshore Turbine Wake Power Losses: Is Turbine Separation Significant?. Energy Procedia, 2017, 137, 134-142.	1.8	1
78	The Financial Benefits of Various Catastrophic Failure Prevention Strategies in a Wind Farm: Two market studies (UK-Spain). Journal of Physics: Conference Series, 2017, 926, 012014.	0.4	1
79	Day-ahead Wind Power Predictions at Regional Scales: Post-processing Operational Weather Forecasts with a Hybrid Neural Network. , 2020, , .		1
80	Long-Term Wind Speed Forecasting Based on Seasonal Trends. , 2009, , .		0
81	The variability of future combined wind and marine power in the UK. , 2011, , .		0
82	Power optimization for a variable-speed stall-regulated wind-turbine using scalar control. , 2013, , .		0
83	On the Effects of Directional Bin Size When Simulating Large Offshore Wind Farms with CFD. Wind Engineering, 2015, 39, 641-650.	1.9	0
84	Preliminary assessment of the variability of UK offshore wind speed as a function of distance to the coast. Journal of Physics: Conference Series, 2016, 749, 012004.	0.4	0
85	Sustainable Design and Operation for Renewable EnergyA PV Case Study. , 2016, , .		0
86	Probabilistic wind power forecasting combining deep learning architectures. , 2020, , .		0
87	Wind Energy flips to Open Access. Wind Energy, 2021, 24, 309-309.	4.2	0