Curran Crawford

List of Publications by Year
in descending order

63 papers	1,919 citations	257450 24 h-index	276875 41 g-index
74 all docs	74 docs citations	74 times ranked	1704 citing authors

#	Article	IF	Citations
1	A review on hydrogen production and utilization: Challenges and opportunities. International Journal of Hydrogen Energy, 2022, 47, 26238-26264.	7.1	401
2	Simulating the value of electric-vehicle–grid integration using a behaviourally realistic model. Nature Energy, 2018, 3, 132-139.	39.5	91
3	Transactive control of fast-acting demand response based on thermostatic loads in real-time retail electricity markets. Applied Energy, 2018, 210, 1310-1320.	10.1	89
4	Renewable resources portfolio optimization in the presence of demand response. Applied Energy, 2016, 162, 139-148.	10.1	88
5	Evaluating the importance of mooring line model fidelity in floating offshore wind turbine simulations. Wind Energy, 2014, 17, 1835-1853.	4.2	78
6	Embedded feature-selection support vector machine for driving pattern recognition. Journal of the Franklin Institute, 2015, 352, 669-685.	3.4	60
7	Comparison of Surrogate Models in a Multidisciplinary Optimization Framework for Wing Design. AIAA Journal, 2010, 48, 995-1006.	2.6	59
8	A multi-objective design optimization approach for floating offshore wind turbine support structures. Journal of Ocean Engineering and Marine Energy, 2017, 3, 69-87.	1.7	59
9	Adapted two-equation turbulence closures for actuator disk RANS simulations of wind & tidal turbine wakes. Renewable Energy, 2016, 92, 273-292.	8.9	58
10	Modeling the GHG emissions intensity of plug-in electric vehicles using short-term and long-term perspectives. Transportation Research, Part D: Transport and Environment, 2019, 69, 209-223.	6.8	58
11	Comfort-Constrained Distributed Heat Pump Management. Energy Procedia, 2011, 12, 849-855.	1.8	49
12	Mesh and load distribution requirements for actuator line CFD simulations. Wind Energy, 2013, 16, 1183-1196.	4.2	49
13	Comparing alternative heavy-duty drivetrains based on GHG emissions, ownership and abatement costs: Simulations of freight routes in British Columbia. Transportation Research, Part D: Transport and Environment, 2019, 76, 19-55.	6.8	41
14	Robust and Reliability-Based Design Optimization Framework for Wing Design. AIAA Journal, 2014, 52, 711-724.	2.6	40
15	Impact of land requirements on electricity system decarbonisation pathways. Energy Policy, 2019, 129, 193-205.	8.8	40
16	Integrating renewable energy using a smart distribution system: Potential of self-regulating demand response. Renewable Energy, 2013, 52, 46-56.	8.9	35
17	Electricity system and emission impact of direct and indirect electrification of heavy-duty transportation. Energy, 2019, 172, 740-751.	8.8	33
18	Energy efficient communication networks design for demand response in smart grid. , 2011, , .		32

#	Article	IF	Citations
19	Coal-to-biomass retrofit in Alberta â€"value of forest residue bioenergy in the electricity system. Renewable Energy, 2018, 125, 373-383.	8.9	29
20	Remote community integrated energy system optimization including building enclosure improvements and quantitative energy trilemma metrics. Applied Energy, 2020, 267, 115017.	10.1	29
21	Exploring electricity generation alternatives for Canadian Arctic communities using a multi-objective genetic algorithm approach. Energy Conversion and Management, 2020, 210, 112471.	9.2	29
22	Wind energy in the city: An interurban comparison of social acceptance of wind energy projects. Energy Research and Social Science, 2015, 8, 66-77.	6.4	28
23	Hydrodynamics-based floating wind turbine support platform optimization: A basis function approach. Renewable Energy, 2014, 66, 559-569.	8.9	27
24	Examining the role of natural gas and advanced vehicle technologies in mitigating CO_2 emissions of heavy-duty trucks: Modeling prototypical British Columbia routes with road grades. Transportation Research, Part D: Transport and Environment, 2018, 62, 186-211.	6.8	27
25	Active power regulation of wind power systems through demand response. Science China Technological Sciences, 2012, 55, 1667-1676.	4.0	26
26	A Cumulant-Tensor-Based Probabilistic Load Flow Method. IEEE Transactions on Power Systems, 2018, 33, 5648-5656.	6.5	26
27	Wind integration in self-regulating electric load distributions. Energy Systems, 2012, 3, 341-377.	3.0	24
28	A test bed for self-regulating distribution systems: Modeling integrated renewable energy and demand response in the GridLAB-D/MATLAB environment. , 2012, , .		23
29	Electrification of road transportation with utility controlled charging: A case study for British Columbia with a 93% renewable electricity target. Applied Energy, 2019, 253, 113536.	10.1	23
30	ISPH modelling of an oscillating wave surge converter using an OpenMP-based parallel approach. Journal of Ocean Engineering and Marine Energy, 2016, 2, 301-312.	1.7	21
31	Robust and Reliability Based Design Optimization Framework for Wing Design. , 2012, , .		20
32	Interconnection-wide hour-ahead scheduling in the presence of intermittent renewables and demand response: A surplus maximizing approach. Applied Energy, 2017, 189, 336-351.	10.1	17
33	A fully coupled frequency domain model for floating offshore wind turbines. Journal of Ocean Engineering and Marine Energy, 2019, 5, 135-158.	1.7	17
34	Evolving offshore wind: A genetic algorithm-based support structure optimization framework for floating wind turbines. , 2013, , .		16
35	Tuned actuator disk approach for predicting tidal turbine performance with wake interaction. International Journal of Marine Energy, 2017, 17, 1-20.	1.8	15
36	Coordinated charging of electric vehicles connected to a net-metered PV parking lot. , 2017, , .		14

#	Article	IF	Citations
37	LiDAR–based characterization of mid–altitude wind conditions for airborne wind energy systems. Wind Energy, 2019, 22, 1101-1120.	4.2	14
38	Transition of heavy–duty trucks from diesel to hydrogen fuel cells: Opportunities, challenges, and recommendations. International Journal of Energy Research, 2022, 46, 11718-11729.	4.5	13
39	ISPH modelling for hydrodynamic applications using a new MPI-based parallel approach. Journal of Ocean Engineering and Marine Energy, 2017, 3, 35-50.	1.7	12
40	A new Kriging–"Bat Algorithm for solving computationally expensive black-box global optimization problems. Engineering Optimization, 2019, 51, 265-285.	2.6	12
41	A tuned actuator cylinder approach for predicting cross-flow turbine performance with wake interaction and channel blockage effects. International Journal of Marine Energy, 2017, 18, 30-56.	1.8	11
42	Agent-Based Simulation for Interconnection-Scale Renewable Integration and Demand Response Studies. Engineering, 2015, 1, 422-435.	6.7	8
43	Improving mesoscale wind speed forecasts using lidar-based observation nudging for airborne wind energy systems. Wind Energy Science, 2019, 4, 563-580.	3.3	8
44	A fast stochastic solution method for the Blade Element Momentum equations for long–term load assessment. Wind Energy, 2018, 21, 115-128.	4.2	7
45	Investigating the loads and performance of a model horizontal axis wind turbine under reproducible IEC extreme operational conditions. Wind Energy Science, 2021, 6, 477-489.	3.3	7
46	Advancement of a Robust and Reliability-Based Design Optimization Framework for Wing Design. , 2010, , .		6
47	Simulating competition among heavy-duty zero-emissions vehicles under different infrastructure conditions. Transportation Research, Part D: Transport and Environment, 2022, 106, 103254.	6.8	6
48	The importance of mooring line model fidelity in floating wind turbine simulations. , 2011, , .		4
49	Integration of price-driven demand response using plug-in electric vehicles in smart grids. , 2016, , .		4
50	Minimizing errors in interpolated discrete stochastic wind fields. Journal of Wind Engineering and Industrial Aerodynamics, 2016, 152, 15-22.	3.9	4
51	Fast Analysis of Unsteady Wing Aerodynamics via Stochastic Models. AIAA Journal, 2017, 55, 719-728.	2.6	4
52	Experimental and numerical simulation of extreme operational conditions for horizontal axis wind turbines based on the IEC standard. Wind Energy Science, 2020, 5, 1755-1770.	3.3	4
53	Surrogate models for the blade element momentum aerodynamic model using non-intrusive polynomial chaos expansions. Wind Energy Science, 2022, 7, 1289-1304.	3.3	4
54	A stochastic aerodynamic model for stationary blades in unsteady 3D wind fields. Journal of Physics: Conference Series, 2016, 753, 082009.	0.4	3

#	Article	IF	Citations
55	Design and Characterization of a Trailer-Based Horizontal-Axis Wind Turbine Test Rig. Journal of Solar Energy Engineering, Transactions of the ASME, 2018, 140, .	1.8	3
56	Addressing key challenges in transportation mode electrification. , 2016, , .		2
57	Assessing the impact of an electric bus duty cycle on battery pack life span. , 2017, , .		2
58	An engineering model for 3-D turbulent wind inflow based on a limited set of random variables. Wind Energy Science, 2017, 2, 507-520.	3.3	2
59	Shared Automated Electric Vehicle Prospects for Low Carbon Road Transportation in British Columbia, Canada. Vehicles, 2022, 4, 102-123.	3.1	2
60	Performance Modeling and Benchmark Analysis of an Advanced 4WD Series-Parallel PHEV Using Dynamic Programming. , 2015, , .		1
61	Development of an Analytical Unsteady Model for Wind Turbine Aerodynamic Response to Linear Pitch Changes. Journal of Solar Energy Engineering, Transactions of the ASME, 2016, 138, .	1.8	1
62	Optimal Operation of a Self-regulating Smart Distribution System with Wind Energy Integration and Demand Response. Lecture Notes in Energy, 2017, , 707-734.	0.3	0
63	Notice of Removal: A Fuzzy Satisfactory Optimization Method Based on Stress Analysis for a Hybrid Composite Flywheel. , 2017, , .		0