Magnus Korpas

List of Publications by Year
in descending order

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90 papers	2,202 citations	147801 31 h-index	254184 43 g-index
90 all docs	90 docs citations	90 times ranked	2000 citing authors

#	Article	IF	Citations
1	A Norwegian case study on the production of hydrogen from wind power. International Journal of Hydrogen Energy, 2007, 32, 1500-1507.	7.1	131
2	Opportunities for hydrogen production in connection with wind power in weak grids. Renewable Energy, 2008, 33, 1199-1208.	8.9	88
3	Energy Storage Scheduling in Distribution Systems Considering Wind and Photovoltaic Generation Uncertainties. Energies, 2019, 12, 1231.	3.1	71
4	Methodology for optimal energy system design of Zero Energy Buildings using mixed-integer linear programming. Energy and Buildings, 2016, 127, 194-205.	6.7	70
5	Variability Characteristics of European Wind and Solar Power Resourcesâ€"A Review. Energies, 2016, 9, 449.	3.1	65
6	Robust planning of distributed battery energy storage systems in flexible smart distribution networks: A comprehensive study. Renewable and Sustainable Energy Reviews, 2020, 123, 109739.	16.4	62
7	A Case-Study on Offshore Wind Power Supply to Oil and Gas Rigs. Energy Procedia, 2012, 24, 18-26.	1.8	60
8	Power system decarbonization: Impacts of energy storage duration and interannual renewables variability. Renewable Energy, 2020, 156, 1171-1185.	8.9	58
9	A stochastic dynamic model for optimal timing of investments in new generation capacity in restructured power systems. International Journal of Electrical Power and Energy Systems, 2007, 29, 163-174.	5.5	55
10	Distributed control scheme for residential battery energy storage units coupled with PV systems. Renewable Energy, 2017, 113, 1099-1110.	8.9	54
11	The Potential of Integrating Wind Power with Offshore Oil and Gas Platforms. Wind Engineering, 2010, 34, 125-137.	1.9	53
12	Impact of local electricity markets and peer-to-peer trading on low-voltage grid operations. Applied Energy, 2021, 301, 117404.	10.1	52
13	Optimal Partitioning of Smart Distribution Systems Into Supply-Sufficient Microgrids. IEEE Transactions on Smart Grid, 2019, 10, 2523-2533.	9.0	50
14	Decarbonization synergies from joint planning of electricity and hydrogen production: A Texas case study. International Journal of Hydrogen Energy, 2020, 45, 32899-32915.	7.1	49
15	A generic framework for power system flexibility analysis using cooperative game theory. Applied Energy, 2018, 212, 223-232.	10.1	47
16	Review of wind generation within adequacy calculations and capacity markets for different power systems. Renewable and Sustainable Energy Reviews, 2020, 119, 109540.	16.4	47
17	Addressing technical challenges in 100% variable inverterâ€based renewable energy power systems. Wiley Interdisciplinary Reviews: Energy and Environment, 2020, 9, e376.	4.1	47
18	Trading strategies for distribution company with stochastic distributed energy resources. Applied Energy, 2016, 177, 625-635.	10.1	46

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19	Power Conditioning of Distribution Networks via Single-Phase Electric Vehicles Equipped. IEEE Systems Journal, 2019, 13, 3433-3442.	4.6	44
20	Two-stage hybrid stochastic/robust optimal coordination of distributed battery storage planning and flexible energy management in smart distribution network. Journal of Energy Storage, 2019, 26, 100970.	8.1	43
21	System Impact Studies for Near 100% Renewable Energy Systems Dominated by Inverter Based Variable Generation. IEEE Transactions on Power Systems, 2022, 37, 3249-3258.	6.5	43
22	Cost-optimal energy system design in Zero Energy Buildings with resulting grid impact: A case study of a German multi-family house. Energy and Buildings, 2016, 127, 830-845.	6.7	40
23	Proactive operation of electric vehicles in harmonic polluted smart distribution networks. IET Generation, Transmission and Distribution, 2018, 12, 967-975.	2.5	40
24	Electrification of offshore petroleum installations with offshore wind integration. Renewable Energy, 2013, 50, 558-564.	8.9	39
25	Flexibility Planning of Distributed Battery Energy Storage Systems in Smart Distribution Networks. Iranian Journal of Science and Technology - Transactions of Electrical Engineering, 2020, 44, 1105-1121.	2.3	39
26	Heat and electric vehicle flexibility in the European power system: A case study of Norwegian energy communities. International Journal of Electrical Power and Energy Systems, 2021, 125, 106479.	5.5	39
27	A framework to determine optimal offshore grid structures for wind power integration and power exchange. Wind Energy, 2011, 14, 977-992.	4.2	38
28	Balancing Market Integration in the Northern European Continent: A 2030 Case Study. IEEE Transactions on Sustainable Energy, 2012, 3, 918-930.	8.8	37
29	Exploring prospective benefits of electric vehicles for optimal energy conditioning in distribution networks. Energy, 2018, 157, 679-689.	8.8	37
30	Improving the network infeed accuracy of non-dispatchable generators with energy storage devices. Electric Power Systems Research, 2008, 78, 2024-2036.	3.6	36
31	Electric vehicle mobility and optimal grid reconfiguration as flexibility tools in wind integrated power systems. International Journal of Electrical Power and Energy Systems, 2019, 110, 83-94.	5.5	34
32	Aggregation Methods for Modelling Hydropower and Its Implications for a Highly Decarbonised Energy System in Europe. Energies, 2017, 10, 1841.	3.1	32
33	Norway as a Battery for the Future European Power Systemâ€”Impacts on the Hydropower System. Energies, 2017, 10, 2054.	3.1	32
34	Stochastic Optimization of Microgrid Operation With Renewable Generation and Energy Storages. IEEE Transactions on Sustainable Energy, 2022, 13, 1481-1491.	8.8	31
35	Strategy-making for a proactive distribution company in the real-time market with demand response. Applied Energy, 2016, 181, 540-548.	10.1	28
36	Demystifying market clearing and price setting effects in low-carbon energy systems. Energy Economics, 2021, 93, 105051.	12.1	27

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37	Identifying Operational Requirements for Flexible CCS Power Plant in Future Energy Systems. Energy Procedia, 2016, 86, 22-31.	1.8	26
38	Towards robust OPF solution strategy for the future AC/DC grids: case of VSCâ€HVDCâ€connected offshore wind farms. IET Renewable Power Generation, 2018, 12, 691-701.	3.1	24
39	Assessing the impact of sampling and clustering techniques on offshore grid expansion planning. Energy Procedia, 2017, 137, 152-161.	1.8	22
40	Optimal Operation of Battery Storage for a Subscribed Capacity-Based Power Tariff Prosumerâ€"A Norwegian Case Study. Energies, 2019, 12, 4450.	3.1	21
41	An Integrated Assessment of the Environmental and Economic Impact of Offshore Oil Platform Electrification. Energies, 2019, 12, 2114.	3.1	21
42	Value of hydro power flexibility for hydrogen production in constrained transmission grids. International Journal of Hydrogen Energy, 2020, 45, 1255-1266.	7.1	18
43	Helping end-users help each other: Coordinating development and operation of distributed resources through local power markets and grid tariffs. Energy Economics, 2021, 94, 105065.	12.1	18
44	Balancing of Wind Power Variations Using Norwegian Hydro Power. Wind Engineering, 2013, 37, 79-95.	1.9	17
45	Emissions of electric vehicle charging in future scenarios: The effects of time of charging. Journal of Industrial Ecology, 2021, 25, 1250-1263.	5.5	15
46	Balancing of Variable Wind and Solar Production in Continental Europe with Nordic Hydropower â€“ A Review of Simulation Studies. Energy Procedia, 2016, 87, 91-99.	1.8	14
47	Using storage devices for compensating uncertainties caused by non-dispatchable generators. , 2006, , .		13
48	North Sea offshore network and energy storage for large scale integration of renewables. Sustainable Energy Technologies and Assessments, 2015, 11, 142-147.	2.7	13
49	Towards a fully integrated North Sea offshore grid: An engineeringâ€economic assessment of a power link island. Wiley Interdisciplinary Reviews: Energy and Environment, 2018, 7, e296.	4.1	13
50	Internal hydro- and wind portfolio optimisation in real-time market operations. Renewable Energy, 2021, 173, 675-687.	8.9	13
51	Hydro Power Reservoir Aggregation via Genetic Algorithms. Energies, 2017, 10, 2165.	3.1	12
52	Interactive protocols for distributed energy resource management systems (DERMS). IET Generation, Transmission and Distribution, 2020, 14, 2065-2081.	2.5	12
53	Enhanced primary frequency control from EVs: a fleet management strategy to mitigate effects of response discreteness. IET Smart Grid, 2019, 2, 436-444.	2.2	11
54	Convex Models for Optimal Utility-Based Distributed Generation Allocation in Radial Distribution Systems. IEEE Systems Journal, 2018, 12, 3497-3508.	4.6	10

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55	Multiple Nash Equilibria in Electricity Markets With Price-Making Hydrothermal Producers. IEEE Transactions on Power Systems, 2019, 34, 422-431.	6.5	10
56	Smoothing of Offshore Wind Power Variations with Norwegian Pumped Hydro: Case Study. Energy Procedia, 2016, 87, 61-68.	1.8	9
57	Flexibility of controllable power transformers for managing wind uncertainty using robust adjustable linearised optimal power flow. IET Renewable Power Generation, 2019, 13, 262-272.	3.1	9
58	Pricing electricity in constrained networks dominated by stochastic renewable generation and electric energy storage. Electric Power Systems Research, 2021, 197, 107169.	3.6	9
59	Impact of Offshore Wind Power on System Adequacy in a Regional Hydro-based Power System with Weak Interconnections. Energy Procedia, 2012, 24, 131-142.	1.8	7
60	A supervised learning approach for optimal selection of bidding strategies in reservoir hydro. Electric Power Systems Research, 2020, 187, 106496.	3.6	7
61	Modelling of Environmental Constraints for Hydropower Optimization Problems â€“ a Review. , 2020, , .		7
62	A Model for Techno-Economic Optimization of Wind Power Combined with Hydrogen Production in Weak Grids. EPE Journal (European Power Electronics and Drives Journal), 2009, 19, 52-59.	0.7	6
63	Medium-Term Hydropower Scheduling with Variable Head under Inflow, Energy and Reserve Capacity Price Uncertainty. Energies, 2019, 12, 189.	3.1	6
64	Hydrogen as Part of a 100% Clean Energy System: Exploring Its Decarbonization Roles. IEEE Power and Energy Magazine, 2022, 20, 85-95.	1.6	6
65	Valuation of stored energy in dynamic optimal power flow of distribution systems with energy storage. , 2016, , .		5
66	Provision of rotating reserves from wind power in a hydro-dominated power system. , 2016, , .		5
67	Introducing system flexibility to a multinational transmission expansion planning model. , 2016, , .		5
68	The impact of electrification on power system in Northern Europe. , 2017, , .		5
69	Value comparison of EV and house batteries at end-user level under different grid tariffs. , 2018, , .		5
70	Planning and Operation of Large Offshore Wind Farms in Areas with Limited Power Transfer Capacity. Wind Engineering, 2012, 36, 69-80.	1.9	4
71	Norwegian pumped hydro for providing peaking power in a low-carbon European power market — Cost comparison against OCGT and CCGT. , 2015, , .		4
72	Validation study of an approximate 2014 European powerâ€flow model using PowerGAMA. IET Generation, Transmission and Distribution, 2017, 11, 392-400.	2.5	4

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73	Integration of PEV and PV in Norway using multi-period ACOPF â€" Case study. , 2017, , .		4
74	Computational Efficiency Assessment of Multi-Period AC Optimal Power Flow including Energy Storage Systems. , 2018, , .		4
75	Interaction of DSO and local energy systems through network tariffs. , 2019, , .		4
76	Control strategies for residential battery energy storage systems coupled with PV systems. , 2017, , .		3
77	BATTPOWER Toolbox: Memory-Efficient and High-Performance Multi-Period AC Optimal Power Flow Solver. IEEE Transactions on Power Systems, 2021, 36, 3921-3937.	6.5	3
78	On the profit variability of power plants in a system with large-scale renewable energy sources. , 2015, , .		2
79	Balancing needs and measures in the future West Central European power system with large shares of wind and solar resources. , 2017, , .		2
80	Agent Based Modelling and Simulation of Plug-In Electric Vehicles Adoption in Norway. , 2018, , .		2
81	BATTPOWER application: Large-scale integration of EVs in an active distribution grid â€" A Norwegian case study. Electric Power Systems Research, 2022, 209, 107967.	3.6	2
82	Coordination of hydro and wind power in a transmission constrained area using SDDP. , 2016, , .		1
83	Assessing the economic impacts for outages of HVDC-cables connecting the Nordic area and continental Europe. , 2016, , .		1
84	Regional effects of hydrogen production in congested transmission grids with wind and hydro power. , 2017, , .		1
85	Demand response with shiftable volume in an equilibrium model of the power system. , 2017, , .		1
86	Impact of Grid Tariffs Design on the Zero Emission Neighborhoods Energy System Investments. , 2019, , .		1
87	Hydropower in Evolving Electricity Markets. , 2022, , 176-185.		1
88	Medium-term hydropower scheduling with provision of capacity reserves and inertia. , 2016, , .		0
89	Impact of inertial response requirements on a multi area renewable network. , 2017, , .		0
90	Market Power in Hydro-Thermal Systems with Marginal Cost Bidding. , 2018, , .		0