Jakub Jurasz

List of Publications by Year
in descending order

76 papers	2,593 citations	201385 27 h-index	197535 49 g-index
77 all docs	77 docs citations	77 times ranked	1962 citing authors

#	Article	IF	Citations
1	Optimal Charging of Electric Vehicle Aggregations Participating in Energy and Ancillary Service Markets. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2022, 3, 270-278.	3.0	21
2	Building integrated pumped-storage potential on a city scale: An analysis based on geographic information systems. Energy, 2022, 242, 122966.	4.5	13
3	On the impact of load profile data on the optimization results of off-grid energy systems. Renewable and Sustainable Energy Reviews, 2022, 159, 112199.	8.2	12
4	Lift Energy Storage Technology: A solution for decentralized urban energy storage. Energy, 2022, 254, 124102.	4.5	17
5	Quantitative evaluation of renewable-energy-based remote microgrids: curtailment, load shifting, and reliability. Renewable and Sustainable Energy Reviews, 2022, 164, 112516.	8.2	18
6	Complementarity and application of renewable energy sources in the marine environment. , 2022, , 527-558.		0
7	Designing hybrid systems operation in the context of resources complementarity. , 2022, , 317-341.		0
8	Complementary behavior of solar and wind energy based on the reported data on the European levelâ€"a country-level analysis. , 2022, , 197-214.		0
9	Off-grid hybrid systems reliability and transmission line utilization from the perspective of renewables complementarity. , 2022, , 359-377.		0
10	Complementarity analysis of hybrid solarâ€"wind power systems' operation. , 2022, , 341-358.		1
11	Economic analysis and optimization of a renewable energy based power supply system with different energy storages for a remote island. Renewable Energy, 2021, 164, 1376-1394.	4.3	106
12	Climate factors influencing effective use of geothermal resources in SE Poland: the Lublin trough. Geothermal Energy, 2021, 9, .	0.9	4
13	Complementarity and â€˜Resource Droughtsâ€™ of Solar and Wind Energy in Poland: An ERA5-Based Analysis. Energies, 2021, 14, 1118.	1.6	42
14	Factors Shaping A/W Heat Pumps CO_2 Emissionsâ€"Evidence from Poland. Energies, 2021, 14, 1576.	1.6	8
15	Li-ion batteries for peak shaving, price arbitrage, and photovoltaic self-consumption in commercial buildings: A Monte Carlo Analysis. Energy Conversion and Management, 2021, 234, 113889.	4.4	58
16	Day-Ahead Wind Power Forecasting in Poland Based on Numerical Weather Prediction. Energies, 2021, 14, 2164.	1.6	28
17	A hybrid method for scenario-based techno-economic-environmental analysis of off-grid renewable energy systems. Renewable and Sustainable Energy Reviews, 2021, 139, 110725.	8.2	41
18	Energy Harvesting and Water Saving in Arid Regions via Solar PV Accommodation in Irrigation Canals. Energies, 2021, 14, 2620.	1.6	42

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19	Assessment of solar and wind energy complementarity in Algeria. Energy Conversion and Management, 2021, 238, 114170.	4.4	41
20	Global atlas of solar and wind resources temporal complementarity. Energy Conversion and Management, 2021, 246, 114692.	4.4	31
21	PV systems integrated with commercial buildings for local and national peak load shaving in Poland. Journal of Cleaner Production, 2021, 322, 129076.	4.6	21
22	Critical review of renewable generation datasets and their implications for European power system models. Renewable and Sustainable Energy Reviews, 2021, 152, 111614.	8.2	14
23	Can a city reach energy self-sufficiency by means of rooftop photovoltaics? Case study from Poland. Journal of Cleaner Production, 2020, 245, 118813.	4.6	60
24	A review on the complementarity of renewable energy sources: Concept, metrics, application and future research directions. Solar Energy, 2020, 195, 703-724.	2.9	440
25	Solar and wind power generation systems with pumped hydro storage: Review and future perspectives. Renewable Energy, 2020, 148, 176-192.	4.3	237
26	Assessing temporal complementarity between three variable energy sources through correlation and compromise programming. Energy, 2020, 192, 116637.	4.5	59
27	Optimized energy management strategy for grid connected double storage (pumped storage-battery) system powered by renewable energy resources. Energy, 2020, 192, 116615.	4.5	79
28	Performance comparison of heuristic algorithms for optimization of hybrid off-grid renewable energy systems. Energy, 2020, 210, 118599.	4.5	52
29	A new indicator for a fair comparison on the energy performance of data centers. Applied Energy, 2020, 276, 115497.	5.1	33
30	Synergetic operation of photovoltaic and hydro power stations on a day-ahead energy market. Energy, 2020, 212, 118686.	4.5	39
31	Simulating Power Generation from Photovoltaics in the Polish Power System Based on Ground Meteorological Measurements—First Tests Based on Transmission System Operator Data. Energies, 2020, 13, 4255.	1.6	2
32	Impact of the Minimum Head on Low-Head Hydropower Plants Energy Production and Profitability. Energies, 2020, 13, 6728.	1.6	8
33	The impact of long-term changes in air temperature on renewable energy in Poland. Science of the Total Environment, 2020, 729, 138965.	3.9	32
34	Component degradation in small-scale off-grid PV-battery systems operation in terms of reliability, environmental impact and economic performance. Sustainable Energy Technologies and Assessments, 2020, 38, 100647.	1.7	19
35	Spatial representation of temporal complementarity between three variable energy sources using correlation coefficients and compromise programming. MethodsX, 2020, 7, 100871.	0.7	15
36	Net load variability with increased renewables penetration — simulation results for Poland. , 2020, , .		2

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37	Measurements and reanalysis data on wind speed and solar irradiation from energy generation perspectives at several locations in Poland. SN Applied Sciences, 2019, 1, 1.	1.5	15
38	Optimal hybrid pumped hydro-battery storage scheme for off-grid renewable energy systems. Energy Conversion and Management, 2019, 199, 112046.	4.4	98
39	The Potential of Wind Power-Supported Geothermal District Heating Systemsâ€"Model Results for a Location in Warsaw (Poland). Energies, 2019, 12, 3706.	1.6	6
40	Market value of PV battery systems for autonomous rural energy supply. Energy Procedia, 2019, 158, 1188-1193.	1.8	3
41	Application of the Triple Diagram Method in Medium-Term Water Consumption Forecasting. , 2019, , 59-65.		0
42	Techno-Economic and Environmental Analysis of a Hybrid PV-WT-PSH/BB Standalone System Supplying Various Loads. Energies, 2019, 12, 514.	1.6	33
43	The potential of photovoltaic systems to reduce energy costs for office buildings in time-dependent and peak-load-dependent tariffs. Sustainable Cities and Society, 2019, 44, 871-879.	5.1	34
44	Sewage Volume Forecasting on a Day-Ahead Basis â€" Analysis of Input Variables Uncertainty. Journal of Ecological Engineering, 2019, 20, 70-79.	0.5	1
45	Integrating a wind- and solar-powered hybrid to the power system by coupling it with a hydroelectric power station with pumping installation. Energy, 2018, 144, 549-563.	4.5	99
46	Ultra-low-temperature district heating systems â€" a way to maximise the ecological and economical effect of an investment?. E3S Web of Conferences, 2018, 44, 00018.	0.2	3
47	GIS estimated potential of rooftop PVs in urban areas - case study WrocÅ‚aw (Poland). E3S Web of Conferences, 2018, 45, 00014.	0.2	5
48	Potential extreme events in the Polish wind energy sector, based on historical data. E3S Web of Conferences, 2018, 44, 00059.	0.2	3
49	Forecasting Daily Water Consumption: a Case Study in Torun, Poland. Periodica Polytechnica: Civil Engineering, 2018, , .	0.6	9
50	The use of photovoltaics and electric vehicles for electricity peak shaving in office buildings. E3S Web of Conferences, 2018, 45, 00037.	0.2	0
51	The impact of complementarity on power supply reliability of small scale hybrid energy systems. Energy, 2018, 161, 737-743.	4.5	102
52	Large scale complementary solar and wind energy sources coupled with pumped-storage hydroelectricity for Lower Silesia (Poland). Energy, 2018, 161, 183-192.	4.5	76
53	Optimal design of a grid-connected desalination plant powered by renewable energy resources using a hybrid PSOâ€"GWO approach. Energy Conversion and Management, 2018, 173, 331-347.	4.4	165
54	Day-Ahead Probabilistic Model for Scheduling the Operation of a Wind Pumped-Storage Hybrid Power Station: Overcoming Forecasting Errors to Ensure Reliability of Supply to the Grid. Sustainability, 2018, 10, 1989.	1.6	9

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55	Forecasting surface water-level fluctuations of a small glacial lake in Poland using a wavelet-based artificial intelligence method. Acta Geophysica, 2018, 66, 1093-1107.	1.0	21
56	Solar–hydro hybrid power station as a way to smooth power output and increase water retention. Solar Energy, 2018, 173, 675-690.	2.9	48
57	Positioning Temperature Sensors in Confined Spaces Subject to Various Exogenous Impacts. Architecture Civil Engineering Environment, 2018, 11, 5-14.	0.6	0
58	Modeling and forecasting energy flow between national power grid and a solar–wind–pumped-hydroelectricity (PV–WT–PSH) energy source. Energy Conversion and Management, 2017, 136, 382-394.	4.4	57
59	Integrating photovoltaics into energy systems by using a run-off-river power plant with pondage to smooth energy exchange with the power gird. Applied Energy, 2017, 198, 21-35.	5.1	100
60	A strategy for the photovoltaic-powered pumped storage hydroelectricity. Energy and Environment, 2017, 28, 544-563.	2.7	7
61	A simulation and simple optimization of a wind-solar-hydro micro power source with a battery bank as an energy storage device. E3S Web of Conferences, 2017, 14, 01017.	0.2	5
62	Economic and environmental analysis of a hybrid solar, wind and pumped storage hydroelectric energy source: a Polish perspective. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2017, 65, 859-869.	0.8	6
63	FORECASTING SURFACE WATER LEVEL FLUCTUATIONS OF LAKE SERWY (NORTHEASTERN POLAND) BY ARTIFICIAL NEURAL NETWORKS AND MULTIPLE LINEAR REGRESSION. Journal of Environmental Engineering and Landscape Management, 2017, 25, 379-388.	0.4	18
64	Estimation of the temperature spatial variability in confined spaces based on thermal imaging. E3S Web of Conferences, 2017, 22, 00004.	0.2	2
65	Decision support for optimal location of local heat source for small district heating system on the example of biogas plant. E3S Web of Conferences, 2017, 17, 00016.	0.2	2
66	Temporal and spatial complementarity of wind and solar resources in Lower Silesia (Poland). E3S Web of Conferences, 2017, 22, 00074.	0.2	9
67	Forecasting the Nysa Kłodzka flow rate in order to predict the available flow for a run-off-river (ROR) power plant. E3S Web of Conferences, 2017, 14, 01019.	0.2	1
68	Concept of large scale PV-WT-PSH energy sources coupled with the national power system. E3S Web of Conferences, 2017, 17, 00035.	0.2	3
69	Site selection for wind and solar parks based on resources temporal and spatial complementarity – mathematical modelling approach. Przeglad Elektrotechniczny, 2017, 1, 88-93.	0.1	4
70	How might residential PV change the energy demand curve in Poland. E3S Web of Conferences, 2016, 10, 00059.	0.2	6
71	Investigating Theoretical PV Energy Generation Patterns with Their Relation to the Power Load Curve in Poland. International Journal of Photoenergy, 2016, 2016, 1-7.	1.4	9
72	Assessing temporal complementarity of solar, wind and hydrokinetic energy. E3S Web of Conferences, 2016, 10, 00032.	0.2	16

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73	Evaluation of the Complementarity of Wind Energy Resources, Solar Radiation and Flowing Water â€" a Case Study of PiÅ,a. Acta Energetica, 2016, 2, 98-102.	0.1	15
74	Day ahead electric power load forecasting by WT-ANN. Przeglad Elektrotechniczny, 2016, 1, 154-156.	0.1	4
75	WpÅ,yw zmiennoÅ›ci temperatury na zapotrzebowanie na moc elektrycznÄ… w Polsce w latach 2002-2015. Przeglad Elektrotechniczny, 2016, 1, 259-263.	0.1	1
76	Application of artificial neural networks (ANN) in Lake DrwÄ™ckie water level modelling. Limnological Review, 2015, 15, 21-30.	0.5	3