

# Jakub Jurasz

## List of Publications by Year in descending order

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Version: 2024-02-01

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  | A review on the complementarity of renewable energy sources: Concept, metrics, application and future research directions. <i>Solar Energy</i> , 2020, 195, 703-724.                                | 2.9 | 440       |
| 2  | Solar and wind power generation systems with pumped hydro storage: Review and future perspectives. <i>Renewable Energy</i> , 2020, 148, 176-192.  | 4.3 | 237       |
| 3  | Optimal design of a grid-connected desalination plant powered by renewable energy resources using a hybrid PSO-GWO approach. <i>Energy Conversion and Management</i> , 2018, 173, 331-347.          | 4.4 | 165       |
| 4  | Economic analysis and optimization of a renewable energy based power supply system with different energy storages for a remote island. <i>Renewable Energy</i> , 2021, 164, 1376-1394.              | 4.3 | 106       |
| 5  | The impact of complementarity on power supply reliability of small scale hybrid energy systems. <i>Energy</i> , 2018, 161, 737-743.   | 4.5 | 102       |
| 6  | Integrating photovoltaics into energy systems by using a run-off-river power plant with pondage to smooth energy exchange with the power grid. <i>Applied Energy</i> , 2017, 198, 21-35.            | 5.1 | 100       |
| 7  | Integrating a wind- and solar-powered hybrid to the power system by coupling it with a hydroelectric power station with pumping installation. <i>Energy</i> , 2018, 144, 549-563.                   | 4.5 | 99        |
| 8  | Optimal hybrid pumped hydro-battery storage scheme for off-grid renewable energy systems. <i>Energy Conversion and Management</i> , 2019, 199, 112046.  | 4.4 | 98        |
| 9  | Optimized energy management strategy for grid connected double storage (pumped storage-battery) system powered by renewable energy resources. <i>Energy</i> , 2020, 192, 116615.                    | 4.5 | 79        |
| 10 | Large scale complementary solar and wind energy sources coupled with pumped-storage hydroelectricity for Lower Silesia (Poland). <i>Energy</i> , 2018, 161, 183-192.                                | 4.5 | 76        |
| 11 | Can a city reach energy self-sufficiency by means of rooftop photovoltaics? Case study from Poland. <i>Journal of Cleaner Production</i> , 2020, 245, 118813.                                       | 4.6 | 60        |
| 12 | Assessing temporal complementarity between three variable energy sources through correlation and compromise programming. <i>Energy</i> , 2020, 192, 116637.   | 4.5 | 59        |
| 13 | Li-ion batteries for peak shaving, price arbitrage, and photovoltaic self-consumption in commercial buildings: A Monte Carlo Analysis. <i>Energy Conversion and Management</i> , 2021, 234, 113889. | 4.4 | 58        |
| 14 | Modeling and forecasting energy flow between national power grid and a solar-wind-pumped-hydroelectricity (PV-WT-PSH) energy source. <i>Energy Conversion and Management</i> , 2017, 136, 382-394.  | 4.4 | 57        |
| 15 | Performance comparison of heuristic algorithms for optimization of hybrid off-grid renewable energy systems. <i>Energy</i> , 2020, 210, 118599.   | 4.5 | 52        |
| 16 | Solar-hydro hybrid power station as a way to smooth power output and increase water retention. <i>Solar Energy</i> , 2018, 173, 675-690.  | 2.9 | 48        |
| 17 | Complementarity and Resource Droughts™ of Solar and Wind Energy in Poland: An ERA5-Based Analysis. <i>Energies</i> , 2021, 14, 1118.  | 1.6 | 42        |
| 18 | Energy Harvesting and Water Saving in Arid Regions via Solar PV Accommodation in Irrigation Canals. <i>Energies</i> , 2021, 14, 2620.   | 1.6 | 42        |

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|----|--|-----|-----------|
| 19 | A hybrid method for scenario-based techno-economic-environmental analysis of off-grid renewable energy systems. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 139, 110725.   | 8.2 | 41        |
| 20 | Assessment of solar and wind energy complementarity in Algeria. <i>Energy Conversion and Management</i> , 2021, 238, 114170.   | 4.4 | 41        |
| 21 | Synergetic operation of photovoltaic and hydro power stations on a day-ahead energy market. <i>Energy</i> , 2020, 212, 118686.   | 4.5 | 39        |
| 22 | The potential of photovoltaic systems to reduce energy costs for office buildings in time-dependent and peak-load-dependent tariffs. <i>Sustainable Cities and Society</i> , 2019, 44, 871-879.  | 5.1 | 34        |
| 23 | Techno-Economic and Environmental Analysis of a Hybrid PV-WT-PSH/BB Standalone System Supplying Various Loads. <i>Energies</i> , 2019, 12, 514.  | 1.6 | 33        |
| 24 | A new indicator for a fair comparison on the energy performance of data centers. <i>Applied Energy</i> , 2020, 276, 115497.  | 5.1 | 33        |
| 25 | The impact of long-term changes in air temperature on renewable energy in Poland. <i>Science of the Total Environment</i> , 2020, 729, 138965.   | 3.9 | 32        |
| 26 | Global atlas of solar and wind resources temporal complementarity. <i>Energy Conversion and Management</i> , 2021, 246, 114692.  | 4.4 | 31        |
| 27 | Day-Ahead Wind Power Forecasting in Poland Based on Numerical Weather Prediction. <i>Energies</i> , 2021, 14, 2164.  | 1.6 | 28        |
| 28 | Forecasting surface water-level fluctuations of a small glacial lake in Poland using a wavelet-based artificial intelligence method. <i>Acta Geophysica</i> , 2018, 66, 1093-1107.   | 1.0 | 21        |
| 29 | Optimal Charging of Electric Vehicle Aggregations Participating in Energy and Ancillary Service Markets. <i>IEEE Journal of Emerging and Selected Topics in Industrial Electronics</i> , 2022, 3, 270-278.                               | 3.0 | 21        |
| 30 | PV systems integrated with commercial buildings for local and national peak load shaving in Poland. <i>Journal of Cleaner Production</i> , 2021, 322, 129076.  | 4.6 | 21        |
| 31 | Component degradation in small-scale off-grid PV-battery systems operation in terms of reliability, environmental impact and economic performance. <i>Sustainable Energy Technologies and Assessments</i> , 2020, 38, 100647.            | 1.7 | 19        |
| 32 | FORECASTING SURFACE WATER LEVEL FLUCTUATIONS OF LAKE SERWY (NORTHEASTERN POLAND) BY ARTIFICIAL NEURAL NETWORKS AND MULTIPLE LINEAR REGRESSION. <i>Journal of Environmental Engineering and Landscape Management</i> , 2017, 25, 379-388. | 0.4 | 18        |
| 33 | Quantitative evaluation of renewable-energy-based remote microgrids: curtailment, load shifting, and reliability. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 164, 112516.   | 8.2 | 18        |
| 34 | Lift Energy Storage Technology: A solution for decentralized urban energy storage. <i>Energy</i> , 2022, 254, 124102.  | 4.5 | 17        |
| 35 | Assessing temporal complementarity of solar, wind and hydrokinetic energy. <i>E3S Web of Conferences</i> , 2016, 10, 00032.  | 0.2 | 16        |
| 36 | Measurements and reanalysis data on wind speed and solar irradiation from energy generation perspectives at several locations in Poland. <i>SN Applied Sciences</i> , 2019, 1, 1.  | 1.5 | 15        |

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|----|--|-----|-----------|
| 37 | Spatial representation of temporal complementarity between three variable energy sources using correlation coefficients and compromise programming. <i>MethodsX</i> , 2020, 7, 100871.                                       | 0.7 | 15        |
| 38 | Evaluation of the Complementarity of Wind Energy Resources, Solar Radiation and Flowing Water – a Case Study of PiÅ,a. <i>Acta Energetica</i> , 2016, 2, 98-102.   | 0.1 | 15        |
| 39 | Critical review of renewable generation datasets and their implications for European power system models. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 152, 111614.   | 8.2 | 14        |
| 40 | Building integrated pumped-storage potential on a city scale: An analysis based on geographic information systems. <i>Energy</i> , 2022, 242, 122966.  | 4.5 | 13        |
| 41 | On the impact of load profile data on the optimization results of off-grid energy systems. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 159, 112199.  | 8.2 | 12        |
| 42 | Investigating Theoretical PV Energy Generation Patterns with Their Relation to the Power Load Curve in Poland. <i>International Journal of Photoenergy</i> , 2016, 2016, 1-7.  | 1.4 | 9         |
| 43 | Temporal and spatial complementarity of wind and solar resources in Lower Silesia (Poland). <i>E3S Web of Conferences</i> , 2017, 22, 00074.   | 0.2 | 9         |
| 44 | Forecasting Daily Water Consumption: a Case Study in Torun, Poland. <i>Periodica Polytechnica: Civil Engineering</i> , 2018, , .   | 0.6 | 9         |
| 45 | 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. <i>Sustainability</i> , 2018, 10, 1989. | 1.6 | 9         |
| 46 | Impact of the Minimum Head on Low-Head Hydropower Plants Energy Production and Profitability. <i>Energies</i> , 2020, 13, 6728.  | 1.6 | 8         |
| 47 | Factors Shaping A/W Heat Pumps COâ,, Emissionsâ€”Evidence from Poland. <i>Energies</i> , 2021, 14, 1576.   | 1.6 | 8         |
| 48 | A strategy for the photovoltaic-powered pumped storage hydroelectricity. <i>Energy and Environment</i> , 2017, 28, 544-563.  | 2.7 | 7         |
| 49 | How might residential PV change the energy demand curve in Poland. <i>E3S Web of Conferences</i> , 2016, 10, 00059.  | 0.2 | 6         |
| 50 | Economic and environmental analysis of a hybrid solar, wind and pumped storage hydroelectric energy source: a Polish perspective. <i>Bulletin of the Polish Academy of Sciences: Technical Sciences</i> , 2017, 65, 859-869. | 0.8 | 6         |
| 51 | The Potential of Wind Power-Supported Geothermal District Heating Systemsâ€”Model Results for a Location in Warsaw (Poland). <i>Energies</i> , 2019, 12, 3706.   | 1.6 | 6         |
| 52 | A simulation and simple optimization of a wind-solar-hydro micro power source with a battery bank as an energy storage device. <i>E3S Web of Conferences</i> , 2017, 14, 01017.  | 0.2 | 5         |
| 53 | GIS estimated potential of rooftop PVs in urban areas - case study WrocÅ,aw (Poland). <i>E3S Web of Conferences</i> , 2018, 45, 00014.   | 0.2 | 5         |
| 54 | Climate factors influencing effective use of geothermal resources in SE Poland: the Lublin trough. <i>Geothermal Energy</i> , 2021, 9, .   | 0.9 | 4         |

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|----|---|-----|-----------|
| 55 | Day ahead electric power load forecasting by WT-ANN. Przegląd Elektrotechniczny, 2016, 1, 154-156.  | 0.1 | 4         |
| 56 | Site selection for wind and solar parks based on resources temporal and spatial complementarity – mathematical modelling approach. Przegląd Elektrotechniczny, 2017, 1, 88-93.                            | 0.1 | 4         |
| 57 | 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         |
| 58 | Ultra-low-temperature district heating systems – a way to maximise the ecological and economical effect of an investment?. E3S Web of Conferences, 2018, 44, 00018.                                       | 0.2 | 3         |
| 59 | Potential extreme events in the Polish wind energy sector, based on historical data. E3S Web of Conferences, 2018, 44, 00059.   | 0.2 | 3         |
| 60 | Market value of PV battery systems for autonomous rural energy supply. Energy Procedia, 2019, 158, 1188-1193.   | 1.8 | 3         |
| 61 | Application of artificial neural networks (ANN) in Lake DrwÄ™ckie water level modelling. Limnological Review, 2015, 15, 21-30.  | 0.5 | 3         |
| 62 | Estimation of the temperature spatial variability in confined spaces based on thermal imaging. E3S Web of Conferences, 2017, 22, 00004.   | 0.2 | 2         |
| 63 | 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         |
| 64 | 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         |
| 65 | Net load variability with increased renewables penetration – simulation results for Poland. , 2020, , .   |     | 2         |
| 66 | Forecasting the Nysa KÅ,odzka 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         |
| 67 | Sewage Volume Forecasting on a Day-Ahead Basis – Analysis of Input Variables Uncertainty. Journal of Ecological Engineering, 2019, 20, 70-79.   | 0.5 | 1         |
| 68 | WpÅ,yw zmiennoÅci temperatury na zapotrzebowanie na moc elektrycznÄ... w Polsce w latach 2002-2015. Przegląd Elektrotechniczny, 2016, 1, 259-263.   | 0.1 | 1         |
| 69 | Complementarity analysis of hybrid solar – wind power systems' operation. , 2022, , 341-358.  |     | 1         |
| 70 | The use of photovoltaics and electric vehicles for electricity peak shaving in office buildings. E3S Web of Conferences, 2018, 45, 00037.   | 0.2 | 0         |
| 71 | Application of the Triple Diagram Method in Medium-Term Water Consumption Forecasting. , 2019, , 59-65.   |     | 0         |
| 72 | Positioning Temperature Sensors in Confined Spaces Subject to Various Exogenous Impacts. Architecture Civil Engineering Environment, 2018, 11, 5-14.  | 0.6 | 0         |

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|----|---|----|-----------|
| 73 | Complementarity and application of renewable energy sources in the marine environment. , 2022, , 527-558.                                     |    | 0         |
| 74 | Designing hybrid systems operation in the context of resources complementarity. , 2022, , 317-341.  |    | 0         |
| 75 | Complementary behavior of solar and wind energy based on the reported data on the European level—a country-level analysis. , 2022, , 197-214. |    | 0         |
| 76 | Off-grid hybrid systems reliability and transmission line utilization from the perspective of renewables complementarity. , 2022, , 359-377.  |    | 0         |