Goran Strbac

List of Publications by Citations

225 papers	5,972 citations	37 h-index	71 g-index
249 ext. papers	7,724 ext. citations	6.5 avg, IF	6.84 L-index

#	Paper	IF	Citations
225	Demand side management: Benefits and challenges. *Energy Policy*, **2008**, 36, 4419-4426	7.2	1093
224	Multi-time period combined gas and electricity network optimisation. *Electric Power Systems Research*, **2008**, 78, 1265-1279	3.5	206
223	Value of Bulk Energy Storage for Managing Wind Power Fluctuations. *IEEE Transactions on Energy Conversion*, **2007**, 22, 197-205	5.4	197
222	Whole-Systems Assessment of the Value of Energy Storage in Low-Carbon Electricity Systems. *IEEE Transactions on Smart Grid*, **2014**, 5, 1098-1109	10.7	175
221	Distribution System State Estimation Using an Artificial Neural Network Approach for Pseudo Measurement Modeling. *IEEE Transactions on Power Systems*, **2012**, 27, 1888-1896	7	171
220	Impact of wind generation on the operation and development of the UK electricity systems. *Electric Power Systems Research*, **2007**, 77, 1214-1227	3.5	163
219	Decentralized Control of Thermostatic Loads for Flexible Demand Response. *IEEE Transactions on Control Systems Technology*, **2015**, 23, 1685-1700	4.8	143
218	Stochastic Scheduling With Inertia-Dependent Fast Frequency Response Requirements. *IEEE Transactions on Power Systems*, **2016**, 31, 1557-1566	7	137
217	Decentralized Participation of Flexible Demand in Electricity Markets—Part II: Application With Electric Vehicles and Heat Pump Systems. *IEEE Transactions on Power Systems*, **2013**, 28, 3667-3674	7	107
216	Decentralized Participation of Flexible Demand in Electricity Markets—Part I: Market Mechanism. *IEEE Transactions on Power Systems*, **2013**, 28, 3658-3666	7	101
215	A MILP model for optimising multi-service portfolios of distributed energy storage. *Applied Energy*, **2015**, 137, 554-566	10.7	98
214	Smart control for minimizing distribution network reinforcement cost due to electrification. *Energy Policy*, **2013**, 52, 76-84	7.2	94
213	Microgrids: Enhancing the Resilience of the European Megagrid. *IEEE Power and Energy Magazine*, **2015**, 13, 35-43	2.4	91
212	Total cost estimates for large-scale wind scenarios in UK. *Energy Policy*, **2004**, 32, 1949-1956	7.2	84
211	Economic and Environmental Benefits of Dynamic Demand in Providing Frequency Regulation. *IEEE Transactions on Smart Grid*, **2013**, 4, 2036-2048	10.7	83
210	Assessment of the Role and Value of Frequency Response Support From Wind Plants. *IEEE Transactions on Sustainable Energy*, **2016**, 7, 586-595	8.2	73
209	Efficient Stochastic Scheduling for Simulation of Wind-Integrated Power Systems. *IEEE Transactions on Power Systems*, **2012**, 27, 323-334	7	72

208	Valuation of Flexible Transmission Investment Options Under Uncertainty. *IEEE Transactions on Power Systems*, **2015**, 30, 1047-1055	7	69
207	A Recursive Bayesian Approach for Identification of Network Configuration Changes in Distribution System State Estimation. *IEEE Transactions on Power Systems*, **2010**, 25, 1329-1336	7	69
206	Distributed Generation **2010**,		66
205	Deep Reinforcement Learning for Strategic Bidding in Electricity Markets. *IEEE Transactions on Smart Grid*, **2020**, 11, 1343-1355	10.7	63
204	Advanced Control of Thermostatic Loads for Rapid Frequency Response in Great Britain. *IEEE Transactions on Power Systems*, **2017**, 32, 2106-2117	7	62
203	Effect of Battery Degradation on Multi-Service Portfolios of Energy Storage. *IEEE Transactions on Sustainable Energy*, **2016**, 7, 1718-1729	8.2	60
202	Using Bayesian Deep Learning to Capture Uncertainty for Residential Net Load Forecasting. *IEEE Transactions on Power Systems*, **2020**, 35, 188-201	7	60
201	Inertial Response From Offshore Wind Farms Connected Through DC Grids. *IEEE Transactions on Power Systems*, **2015**, 30, 1518-1527	7	59
200	On microgrids and resilience: A comprehensive review on modeling and operational strategies. *Renewable and Sustainable Energy Reviews*, **2020**, 134, 110313	16.2	57
199	C-Vine Copula Mixture Model for Clustering of Residential Electrical Load Pattern Data. *IEEE Transactions on Power Systems*, **2017**, 32, 2382-2393	7	54
198	Benefits of flexibility from smart electrified transportation and heating in the future UK electricity system. *Applied Energy*, **2016**, 167, 420-431	10.7	52
197	Decentralized Coordination of Microgrids With Flexible Demand and Energy Storage. *IEEE Transactions on Sustainable Energy*, **2014**, 5, 1406-1414	8.2	51
196	Simultaneous Scheduling of Multiple Frequency Services in Stochastic Unit Commitment. *IEEE Transactions on Power Systems*, **2019**, 34, 3858-3868	7	50
195	Efficacy of options to address balancing challenges: Integrated gas and electricity perspectives. *Applied Energy*, **2017**, 190, 181-190	10.7	46
194	Model-Free Real-Time Autonomous Control for a Residential Multi-Energy System Using Deep Reinforcement Learning. *IEEE Transactions on Smart Grid*, **2020**, 11, 3068-3082	10.7	46
193	A Deep Learning-Based Feature Extraction Framework for System Security Assessment. *IEEE Transactions on Smart Grid*, **2019**, 10, 5007-5020	10.7	46
192	Implementation of a Massively Parallel Dynamic Security Assessment Platform for Large-Scale Grids. *IEEE Transactions on Smart Grid*, **2017**, 8, 1417-1426	10.7	42
191	Co-Optimization of Generation Expansion Planning and Electric Vehicles Flexibility. *IEEE Transactions on Smart Grid*, **2016**, 7, 1609-1619	10.7	40

190	Supporting security and adequacy in future energy systems: The need to enhance long-term energy system models to better treat issues related to variability. *International Journal of Energy Research*, **2015**, 39, 377-396	4.5	40
189	Leaky storage model for optimal multi-service allocation of thermostatic loads. *IET Generation, Transmission and Distribution*, **2016**, 10, 585-593	2.5	37
188	Design of a Hybrid AC/DC Microgrid Using HOMER Pro: Case Study on an Islanded Residential Application. *Inventions*, **2018**, 3, 55	2.9	37
187	Value of gas network infrastructure flexibility in supporting cost effective operation of power systems. *Applied Energy*, **2017**, 202, 571-580	10.7	36
186	Impact of Uncertainties on Resilient Operation of Microgrids: A Data-Driven Approach. *IEEE Access*, **2019**, 7, 14924-14937	3.5	36
185	Whole-System Assessment of the Benefits of Integrated Electricity and Heat System. *IEEE Transactions on Smart Grid*, **2019**, 10, 1132-1145	10.7	36
184	Strategic Distribution Network Planning With Smart Grid Technologies. *IEEE Transactions on Smart Grid*, **2017**, 8, 2656-2664	10.7	35
183	Clustering-Based Residential Baseline Estimation: A Probabilistic Perspective. *IEEE Transactions on Smart Grid*, **2019**, 10, 6014-6028	10.7	35
182	Price-Based Schemes for Distributed Coordination of Flexible Demand in the Electricity Market. *IEEE Transactions on Smart Grid*, **2017**, 8, 3104-3116	10.7	34
181	Integrated North Sea grids: The costs, the benefits and their distribution between countries. *Energy Policy*, **2017**, 101, 28-41	7.2	33
180	From Optimization-Based Machine Learning to Interpretable Security Rules for Operation. *IEEE Transactions on Power Systems*, **2019**, 34, 3826-3836	7	32
179	Multi-Period and Multi-Spatial Equilibrium Analysis in Imperfect Electricity Markets: A Novel Multi-Agent Deep Reinforcement Learning Approach. *IEEE Access*, **2019**, 7, 130515-130529	3.5	31
178	Role and Benefits of Flexible Thermostatically Controlled Loads in Future Low-Carbon Systems. *IEEE Transactions on Smart Grid*, **2018**, 9, 5067-5079	10.7	31
177	Economic assessment of alternative heat decarbonisation strategies through coordinated operation with electricity system UK case study. *Applied Energy*, **2018**, 222, 79-91	10.7	30
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175	An objective-based scenario selection method for transmission network expansion planning with multivariate stochasticity in load and renewable energy sources. *Energy*, **2018**, 145, 871-885	7.9	27
174	Business cases for energy storage with multiple service provision. *Journal of Modern Power Systems and Clean Energy*, **2016**, 4, 615-625	4	27
173	An affine arithmetic-based multi-objective optimization method for energy storage systems operating in active distribution networks with uncertainties. *Applied Energy*, **2018**, 223, 215-228	10.7	26

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171	Electricity transmission arrangements in Great Britain: Time for change?. *Energy Policy*, **2014**, 73, 298-311	7.2	26
170	A multi-objective optimization approach for assessment of technical, commercial and environmental performance of microgrids. *European Transactions on Electrical Power*, **2011**, 21, 1269-1288		26
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167	Benefits of Demand-Side Response in Providing Frequency Response Service in the Future GB Power System. *Frontiers in Energy Research*, **2015**, 3,	3.8	25
166	Full Stochastic Scheduling for Low-Carbon Electricity Systems. *IEEE Transactions on Automation Science and Engineering*, **2017**, 14, 461-470	4.9	24
165	Realising transition pathways for a more electric, low-carbon energy system in the United Kingdom: Challenges, insights and opportunities. *Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy*, **2017**, 231, 440-477	1.6	24
164	A Deep Reinforcement Learning Method for Pricing Electric Vehicles With Discrete Charging Levels. *IEEE Transactions on Industry Applications*, **2020**, 56, 5901-5912	4.3	24
163	Probabilistic Peak Load Estimation in Smart Cities Using Smart Meter Data. *IEEE Transactions on Industrial Electronics*, **2019**, 66, 1608-1618	8.9	24
162	Understanding the Benefits of Dynamic Line Rating Under Multiple Sources of Uncertainty. *IEEE Transactions on Power Systems*, **2018**, 33, 3306-3314	7	23
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150	Decarbonization of Electricity Systems in Europe: Market Design Challenges. *IEEE Power and Energy Magazine*, **2021**, 19, 53-63	2.4	17
149	Factoring Flexible Demand Non-Convexities in Electricity Markets. *IEEE Transactions on Power Systems*, **2015**, 30, 2090-2099	7	16
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147	Risk-averse bidding of energy and spinning reserve by wind farms with on-site energy storage. *IET Renewable Power Generation*, **2018**, 12, 165-173	2.9	16
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140	Demand response contribution to effective inertia for system security in the GB 2020 gone green scenario **2013**,		14
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137	Planning With Multiple Transmission and Storage Investment Options Under Uncertainty: A Nested Decomposition Approach. *IEEE Transactions on Power Systems*, **2018**, 33, 3559-3572	7	14

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127	Incorporating Non-Convex Operating Characteristics Into Bi-Level Optimization Electricity Market Models. *IEEE Transactions on Power Systems*, **2020**, 35, 163-176	7	12
126	Computationally Efficient Pricing and Benefit Distribution Mechanisms for Incentivizing Stable Peer-to-Peer Energy Trading. *IEEE Internet of Things Journal*, **2021**, 8, 734-749	10.7	12
125	Reliability and Vulnerability Assessment of Multi-Energy Systems: An Energy Hub Based Method. *IEEE Transactions on Power Systems*, **2021**, 36, 3948-3959	7	12
124	Coordinated Operation of Gas and Electricity Systems for Flexibility Study. *Frontiers in Energy Research*, **2020**, 8,	3.8	11
123	Option Value of Demand-Side Response Schemes Under Decision-Dependent Uncertainty. *IEEE Transactions on Power Systems*, **2018**, 33, 5103-5113	7	11
122	Stochastic Dual Dynamic Programming for Operation of DER Aggregators Under Multi-Dimensional Uncertainty. *IEEE Transactions on Sustainable Energy*, **2019**, 10, 459-469	8.2	11
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118	Provision of Voltage Ancillary Services Through Enhanced TSO-DSO Interaction and Aggregated Distributed Energy Resources. *IEEE Transactions on Sustainable Energy*, **2021**, 12, 897-908	8.2	10
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115	Real-Time Autonomous Residential Demand Response Management Based on Twin Delayed Deep Deterministic Policy Gradient Learning. *Energies*, **2021**, 14, 531	3.1	9
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109	Stabilizing peer-to-peer energy trading in prosumer coalition through computational efficient pricing. *Electric Power Systems Research*, **2020**, 189, 106764	3.5	8
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105	Strategic Assessment of Alternative Design Options for Multivoltage-Level Distribution Networks. *IEEE Transactions on Power Systems*, **2014**, 29, 1261-1269	7	7
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80	Corrective control through HVDC links: A case study on GB equivalent system **2013**,		4
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39	Value of Thermostatic Loads in Energyffirequency Response Markets: a Mean Field Game Approach **2019**,		1
38	Addressing demand response concentration under dynamic pricing **2015**,		1
37	Optimal multi-service business models for electric vehicles **2017**,		1
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27	Consensus-Based Coordination of Time-Shiftable Flexible Demand **2019**,		1
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