Petr Musilek

List of Publications by Year in Descending Order

139 papers	1,622 citations	19 h-index	36 g-index
185 ext. papers	2,279 ext. citations	3.6 avg, IF	5.44 L-index

#	Paper	IF	Citations
139	Reliability-as-a-Service Usage of Electric Vehicles: Suitability Analysis for Different Types of Buildings. *Energies*, **2022**, 15, 665	3.1	2
138	Federated learning with hyperparameter-based clustering for electrical load forecasting. *Internet of Things (Netherlands)*, **2022**, 17, 100470	6.9	1
137	Probabilistic forecasting of dynamic thermal line rating with temporal correlations. *International Journal of Electrical Power and Energy Systems*, **2022**, 134, 107443	5.1	3
136	Fairness and Utilitarianism in Allocating Energy to EVs during Power Contingencies Using Modified Division Rules. *IEEE Transactions on Sustainable Energy*, **2022**, 1-1	8.2	1
135	Resilience Enhancement Strategies For and Through Electric Vehicles. *Sustainable Cities and Society*, **2022**, 80, 103788	10.1	4
134	Reinforcement learning-driven local transactive energy market for distributed energy resources. *Energy and AI*, **2022**, 8, 100150	12.6	2
133	Performance Analysis of the IOTA DAG-Based Distributed Ledger. *ACM Transactions on Modeling and Performance Evaluation of Computing Systems*, **2021**, 6, 1-20	0.8	0
132	Applications of Generative Adversarial Networks in Anomaly Detection: A Systematic Literature Review. *IEEE Access*, **2021**, 9, 161003-161029	3.5	4
131	A High-Resolution Reflective Microwave Planar Sensor for Sensing of Vanadium Electrolyte. *Sensors* , **2021**, 21,	3.8	14
130	Distributed Learning Applications in Power Systems: A Review of Methods, Gaps, and Challenges. *Energies*, **2021**, 14, 3654	3.1	2
129	Conceptual design of controllers for automated modular construction machines. *Results in Engineering*, **2021**, 10, 100220	3.3	0
128	Dimension-Wise Particle Swarm Optimization: Evaluation and Comparative Analysis. *Applied Sciences (Switzerland)*, **2021**, 11, 6201	2.6	1
127	Distributed Optimization for Distribution Grids With Stochastic DER Using Multi-Agent Deep Reinforcement Learning. *IEEE Access*, **2021**, 9, 63059-63072	3.5	2
126	A Comprehensive Review of Blockchain Consensus Mechanisms. *IEEE Access*, **2021**, 9, 43620-43652	3.5	25
125	Comparative Analysis of Machine Learning Techniques for Temperature Compensation in Microwave Sensors. *IEEE Transactions on Microwave Theory and Techniques*, **2021**, 69, 4223-4236	4.1	18
124	Optimal Design of Distribution Overhead Powerlines using Genetic Algorithms. *IEEE Transactions on Power Delivery*, **2021**, 1-1	4.3	0
123	Performance Evaluation of Blockchain Systems: A Systematic Survey. *IEEE Access*, **2020**, 8, 126927-126950	3.5	36

122	Reinforcement Learning-Based Distributed BESS Management for Mitigating Overvoltage Issues in Systems With High PV Penetration. *IEEE Transactions on Smart Grid*, **2020**, 11, 2980-2994	10.7	26
121	Simulation of a Daytime-Based Q-Learning Control Strategy for Environmental Harvesting WSN Nodes. *Advances in Intelligent Systems and Computing*, **2020**, 432-441	0.4	0
120	Statistical and Nature-Inspired Modeling of Vehicle Flows by Using Finite Mixtures of Simple Circular Normal Distributions. *IEEE Intelligent Transportation Systems Magazine*, **2020**, 12, 182-194	2.6	1
119	. *IEEE Access*, **2020**, 8, 131760-131778	3.5	7
118	A Temperature-Compensated High-Resolution Microwave Sensor Using Artificial Neural Network. *IEEE Microwave and Wireless Components Letters*, **2020**, 30, 919-922	2.6	15
117	Forecasting Photovoltaic Power Production using a Deep Learning Sequence to Sequence Model with Attention **2020**,		2
116	A Simulation Framework for Energy Harvesting in Wireless Sensor Networks: Single Node Architecture Perspective **2019**,		1
115	Towards A Scalable DAG-based Distributed Ledger for Smart Communities **2019**,		11
114	Scan Matching by Cross-Correlation and Differential Evolution. *Electronics (Switzerland)*, **2019**, 8, 856	2.6	3
113	Energy Management for Smart Homes State of the Art. *Applied Sciences (Switzerland)*, **2019**, 9, 3459	2.6	5
112	Quantile Regression and Clustering Models of Prediction Intervals for Weather Forecasts: A Comparative Study. *Forecasting*, **2019**, 1, 169-188	2.3	6
111	Distributed Optimal Power Flow for Electric Power Systems with High Penetration of Distributed Energy Resources **2019**,		4
110	Day-Ahead Dynamic Thermal Line Rating Using Numerical Weather Prediction **2019**,		2
109	Dynamic thermal rating of transmission lines: A review. *Renewable and Sustainable Energy Reviews*, **2018**, 91, 600-612	16.2	61
108	IoT-based MPPT Controller for Photovoltaic Array **2018**,		3
107	**2018**,		3
106	Solar Forecasting Using Remote Solar Monitoring Stations and Artificial Neural Networks **2018**,		6
105	IoT-based smart homes: A review of system architecture, software, communications, privacy and security. *Internet of Things (Netherlands)*, **2018**, 1-2, 81-98	6.9	100

104	Q-Learning Algorithm for Energy Management in Solar Powered Embedded Monitoring Systems **2018**,		5
103	Optimal Component Sizing for Peak Shaving in Battery Energy Storage System for Industrial Applications. *Energies*, **2018**, 11, 2048	3.1	45
102	Energy Harvesting Sources, Storage Devices and System Topologies for Environmental Wireless Sensor Networks: A Review. *Sensors*, **2018**, 18,	3.8	90
101	Fuzzy logic controller for hybrid renewable energy system with multiple types of storage **2017**,		7
100	Optimal energy management of residential PV/HESS using evolutionary fuzzy control **2017**,		3
99	Improving the prediction of wind power ramps using texture extraction techniques applied to atmospheric pressure fields. *International Journal of Data Science and Analytics*, **2017**, 4, 237-250	2	1
98	Ant-based optimal tuning of PID controllers for load frequency control in power systems **2017**,		1
97	LP-based predictive energy management system for residential PV/BESS **2017**,		2
96	Economy of residential photovoltaic generation and battery energy storage in Alberta, Canada **2017**,		3
95	Cuckoo-search optimized fuzzy-logic control of stationary battery storage systems **2017**,		1
94	Intelligent Energy Management for Environmental Monitoring Systems **2017**, 67-94		8
93	Harvesting-Aware Energy Management for Environmental Monitoring WSN. *Energies*, **2017**, 10, 607	3.1	1
92	Economic Optimization of Component Sizing for Residential Battery Storage Systems. *Energies*, **2017**, 10, 835	3.1	90
91	Differential evolution of fuzzy controller for environmentally-powered wireless sensors. *Applied Soft Computing Journal*, **2016**, 48, 193-206	7.5	23
90	Fuzzy logic controller for large, grid-integrated wind farm under variable wind speeds **2016**,		3
89	A probabilistic estimation for dynamic thermal rating of transmission lines **2016**,		5
88	Wireless sensor networks with pressure-based energy forecasting: A simulation study **2016**,		1
87	Temporal Uncertainty of Wind Ramp Predictions Using Probabilistic Forecasting Technique **2016**,		5

86	LORI: Linguistically Oriented RDF Interface for Querying Fuzzy Temporal Data. *Advances in Intelligent Systems and Computing*, **2016**, 337-352	0.4	1
85	ASSESSMENT OF PARKINSONS DISEASE PROGRESSION USING NEURAL NETWORK AND ANFIS MODELS. *Neural Network World*, **2016**, 26, 111-128	2.9	7
84	Novel Point-to-Point Scan Matching Algorithm Based on Cross-Correlation. *Mobile Information Systems*, **2016**, 2016, 1-11	1.4	8
83	Smart renewable energy management system for consumer applications **2016**,		1
82	Derivative based prediction with look ahead **2016**,		1
81	A comparison between fuzzy and probabilistic estimation of Dynamic Thermal Rating of transmission lines **2016**,		3
80	Comparison of IMU Measurements of Curling Stone Dynamics with a Numerical Model. *Procedia Engineering*, **2016**, 147, 596-601		7
79	Optimization of photovoltaic power self-consumption using linear programming **2016**,		8
78	Sensitivity analysis of PCA method for wind ramp event detection **2016**,		1
77	Bio-inspired Routing Strategies for Wireless Sensor Networks. *Intelligent Systems Reference Library*, **2015**, 155-181	0.8	7
76	Review of nature-inspired methods for wake-up scheduling in wireless sensor networks. *Swarm and Evolutionary Computation*, **2015**, 25, 100-118	9.8	22
75	Pressure-based prediction of harvestable energy for powering environmental monitoring systems **2015**,		6
74	Querying RDF Data with Imprecise Time Phrases **2015**,		1
73	Pressure-based forecasting of next-day solar energy availability using evolutionary fuzzy rules **2015** ,		3
72	Analysis of wind ramp events using their conditional probabilities from PCA 3D tables **2015**,		3
71	Energy Availability Forecasting for Harvesting-aware Wireless Sensor Networks: Analysis of Energy Demand of a Predictor Based on Evolutionary Fuzzy Rules **2015**,		3
70	Statistical analysis of environmental measurements for design of energy-efficient monitoring systems **2015**,		1
69	Neutron-Gamma Classification by Evolutionary Fuzzy Rules and Support Vector Machines **2015**,		1

68	Estimating Harvestable Solar Energy from Atmospheric Pressure Using Support Vector Regression **2015**,		1
67	Optimization of Wind Direction Distribution Parameters Using Particle Swarm Optimization. *Advances in Intelligent Systems and Computing*, **2015**, 15-26	0.4	6
66	Distribution of wind power plants to reduce variability of renewable generation **2014**,		1
65	**2014**,		9
64	Support Vector Regression of multiple predictive models of downward short-wave radiation **2014**,		5
63	**2014**,		9
62	Harvesting-aware control of wireless sensor nodes using fuzzy logic and differential evolution **2014** ,		6
61	Fuzzy algorithm for intelligent wireless sensors with solar harvesting **2014**,		8
60	**2014**,		5
59	Clustering numerical weather forecasts to obtain statistical prediction intervals. *Meteorological Applications*, **2014**, 21, 605-618	2.1	8
58	Principal Component Analysis for Evaluation of Wind Ramp Event Probability **2014**,		4
57	Powering Environmental Monitoring Systems in Arctic Regions: A Simulation Study. *Elektronika Ir Elektrotechnika*, **2014**, 20,	1.7	18
56	Optimization of Wireless Sensor Node Parameters by Differential Evolution and Particle Swarm Optimization. *Advances in Intelligent Systems and Computing*, **2014**, 13-22	0.4	2
55	Estimation of wind direction distribution with genetic algorithms **2013**,		5
54	Sensitivity analysis of conductor current-temperature calculations **2013**,		8
53	Towards prediction of photovoltaic power quality **2013**,		1
52	Quantification of gains and risks of static thermal rating based on typical meteorological year. *International Journal of Electrical Power and Energy Systems*, **2013**, 44, 227-235	5.1	26
51	Prediction of PV power quality: Total harmonic distortion of current **2013**,		4

50	Modeling Forecast Uncertainty Using Fuzzy Clustering. *Advances in Intelligent Systems and Computing*, **2013**, 287-296	0.4	1
49	Managing the energy-for-data exchange in remote monitoring systems **2013**,		4
48	Learning uncertainty models from weather forecast performance databases using quantile regression **2013**,		2
47	Learning to predict ice accretion on electric power lines. *Engineering Applications of Artificial Intelligence*, **2012**, 25, 609-617	7.2	30
46	Spatial Analysis of Thermal Aging of Overhead Transmission Conductors. *IEEE Transactions on Power Delivery*, **2012**, 27, 1196-1204	4.3	26
45	Selective upgrading of transmission lines using DTCR **2012**,		1
44	Forecasting severe ice storms using numerical weather prediction: the March 2010 Newfoundland event. *Natural Hazards and Earth System Sciences*, **2011**, 11, 587-595	3.9	11
43	Effect of time resolution of meteorological inputs on dynamic thermal rating calculations. *IET Generation, Transmission and Distribution*, **2011**, 5, 941	2.5	45
42	Modelling precipitation cooling of overhead conductors. *Electric Power Systems Research*, **2011**, 81, 2147-2154	3.5	27
41	Assessment of seasonal static thermal ratings of overhead transmission conductors **2011**,		21
40	Using Dynamic Thermal Rating systems to reduce power generation emissions **2011**,		9
39	Energy harvesting simulation for Automatic Arctic monitoring stations **2010**,		9
38	Electric power system cost/loss optimization using Dynamic Thermal Rating and linear programming **2010**,		18
37	Characterization of a wind flutter generator **2010**,		7
36	Wind power forecasting by an empirical model using NWP outputs **2010**,		10
35	Statistical modeling of energy production by photovoltaic farms **2010**,		7
34	Evolutionary Optimization of an Ice Accretion Forecasting System. *Monthly Weather Review*, **2010**, 138, 2913-2929	2.4	15
33	Analysis of spatial and seasonal distribution of power transmission line thermal aging **2010**,		1

32	Identification of critical aging segments and hotspots of power transmission lines **2010**,		8
31	Evaluating thermal aging characteristics of electric power transmission lines **2010**,		9
30	An intelligent weather-based system to support optimal routing of power transmission lines **2010**,		7
29	Power management with energy harvesting devices **2010**,		12
28	An Ice Accretion Forecasting System (IAFS) for Power Transmission Lines Using Numerical Weather Prediction. *Scientific Online Letters on the Atmosphere*, **2009**, 5, 25-28	2.1	12
27	K-MEANS CLUSTERING FOR PROBLEMS WITH PERIODIC ATTRIBUTES. *International Journal of Pattern Recognition and Artificial Intelligence*, **2009**, 23, 721-743	1.1	12
26	Immune programming models of Cryptosporidium parvum inactivation by ozone and chlorine dioxide. *Information Sciences*, **2009**, 179, 1469-1482	7.7	6
25	Precipitation-based conductor cooling model for Dynamic Thermal Rating systems **2009**,		10
24	Modeling the Disinfection of Waterborne Bacteria Using Neural Networks. *Environmental Engineering Science*, **2007**, 24, 471-482	2	9
23	Neural network models of Cryptosporidium parvum inactivation by chlorine dioxide and ozone. *Journal of Environmental Engineering and Science*, **2007**, 6, 477-482	0.8	2
22	**2007**,		1
21	Intelligent Analysis of Software Maintenance Data **2007**, 14-51		
20	Recurrent Neural Network Based Gating for Natural Gas Load Prediction System **2006**,		5
19	A survey of Knowledge Discovery and Data Mining process models. *Knowledge Engineering Review*, **2006**, 21, 1-24	2.1	217
18	Immune programming. *Information Sciences*, **2006**, 176, 972-1002	7.7	62
17	MASP An Enhanced Model of Fault Type Identification in Object-Oriented Software Engineering. *Journal of Advanced Computational Intelligence and Intelligent Informatics*, **2006**, 10, 312-322	0.4	2
16	Enhanced learning classifier system for robot navigation **2005**,		9
15	Fuzzy situation based navigation of autonomous mobile robot using reinforcement learning **2004**,		1

14	Fuzzy logic in agent-based game design **2004**,		1
13	Using self-organizing maps to analyze object-oriented software measures. *Journal of Systems and Software*, **2001**, 59, 65-82	3.3	15
12	Neural Networks and Fuzzy Systems **2000**, 137-160		2
11	FUZZY NEURAL NETWORKS AND COGNITIVE MODELING. *International Journal of General Systems*, **2000**, 29, 7-28	2.1	2
10	Software cost estimation with fuzzy models. *ACM SIGAPP Applied Computing Review: A Publication of the Special Interest Group on Applied Computing*, **2000**, 8, 24-29	0.7	48
9	Fuzzy Neural Networks **2000**, 161-184		2
8	Adaptive fuzzy approach to modeling of operational space for autonomous mobile robots **1998**, 3522, 265		1
7	Regional-scale modeling of greenhouse gas fluxes23-55		
6			10
5	Human perception of software complexity: knowledge discovery from software data		1
4	Discriminative parameter learning of general Bayesian network classifiers		3
3	Self organizing maps as a tool for software analysis		4
2	On the sensitivity of COCOMO II software cost estimation model		15
1	Identification of Pleonastic It Using the Web. *Journal of Artificial Intelligence Research*,34, 339-389	4	4