

# Valentin Robu

## List of Publications by Year in descending order

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Version: 2024-02-01

97  
papers

4,680  
citations

304701

22  
h-index

133244

59  
g-index

100  
all docs

100  
docs citations

100  
times ranked

3806  
citing authors

#	ARTICLE	IF	CITATIONS
1	Blockchain technology in the energy sector: A systematic review of challenges and opportunities. Renewable and Sustainable Energy Reviews, 2019, 100, 143-174.	16.4	1,454
2	Machine learning methods for wind turbine condition monitoring: A review. Renewable Energy, 2019, 133, 620-635.	8.9	487
3	The complex dynamics of collaborative tagging. , 2007, , .		399
4	Artificial intelligence and machine learning approaches to energy demand-side response: A systematic review. Renewable and Sustainable Energy Reviews, 2020, 130, 109899.	16.4	253
5	Machine learning pipeline for battery state-of-health estimation. Nature Machine Intelligence, 2021, 3, 447-456.	16.0	227
6	Evaluating practical negotiating agents: Results and analysis of the 2011 international competition. Artificial Intelligence, 2013, 198, 73-103.	5.8	137
7	An agent architecture for multi-attribute negotiation using incomplete preference information. Autonomous Agents and Multi-Agent Systems, 2007, 15, 221-252.	2.1	135
8	Emergence of consensus and shared vocabularies in collaborative tagging systems. ACM Transactions on the Web, 2009, 3, 1-34.	2.5	101
9	Smart contracts in energy systems: A systematic review of fundamental approaches and implementations. Renewable and Sustainable Energy Reviews, 2022, 158, 112013.	16.4	95
10	Modeling complex multi-issue negotiations using utility graphs. , 2005, , .		76
11	Peer-to-peer, community self-consumption, and transactive energy: A systematic literature review of local energy market models. Renewable and Sustainable Energy Reviews, 2022, 162, 112403.	16.4	74
12	Intention-Aware Routing of Electric Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 1472-1482.	8.0	64
13	Automated Negotiation for Peer-to-Peer Electricity Trading in Local Energy Markets. Energies, 2020, 13, 920.	3.1	51
14	An Online Mechanism for Multi-Unit Demand and its Application to Plug-in Hybrid Electric Vehicle Charging. Journal of Artificial Intelligence Research, 0, 48, 175-230.	7.0	49
15	Game-theoretic modeling of curtailment rules and network investments with distributed generation. Applied Energy, 2017, 201, 174-187.	10.1	42
16	A multi-agent platform for auction-based allocation of loads in transportation logistics. Expert Systems With Applications, 2011, 38, 3483-3491.	7.6	40
17	Predicting Damage and Life Expectancy of Subsea Power Cables in Offshore Renewable Energy Applications. IEEE Access, 2019, 7, 54658-54669.	4.2	37
18	Optimization of a multiple-scale renewable energy-based virtual power plant in the UK. Applied Energy, 2019, 256, 113973.	10.1	33

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19	Rewarding cooperative virtual power plant formation using scoring rules. <i>Energy</i> , 2016, 117, 19-28.	8.8	32
20	A review: Challenges and opportunities for artificial intelligence and robotics in the offshore wind sector. <i>Energy and AI</i> , 2022, 8, 100146.	10.6	32
21	Crypto-control your own energy supply. <i>Nature</i> , 2017, 548, 158-158.	27.8	30
22	Green hope or red herring? Examining consumer perceptions of peer-to-peer energy trading in the United Kingdom. <i>Energy Research and Social Science</i> , 2020, 68, 101603.	6.4	30
23	Modelling the redistribution of benefits from joint investments in community energy projects. <i>Applied Energy</i> , 2021, 287, 116575.	10.1	29
24	Assessing the Safety and Reliability of Autonomous Vehicles from Road Testing. , 2019, , .		28
25	Automated Multi-Attribute Negotiation with Efficient Use of Incomplete Preference Information. <i>SSRN Electronic Journal</i> , 0, , .	0.4	27
26	Modeling Complex Multi-Issue Negotiation Using Utility Graphs. <i>SSRN Electronic Journal</i> , 2005, , .	0.4	26
27	Efficient Buyer Groups With Prediction-of-Use Electricity Tariffs. <i>IEEE Transactions on Smart Grid</i> , 2018, 9, 4468-4479.	9.0	24
28	Modeling Economic Sharing of Joint Assets in Community Energy Projects Under LV Network Constraints. <i>IEEE Access</i> , 2021, 9, 112019-112042.	4.2	23
29	Data-driven modelling of energy demand response behaviour based on a large-scale residential trial. <i>Energy and AI</i> , 2021, 4, 100071.	10.6	22
30	An Online Mechanism for Multi-speed Electric Vehicle Charging. <i>Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering</i> , 2012, , 100-112.	0.3	22
31	Intention-aware routing to minimise delays at electric vehicle charging stations. , 2013, , .		21
32	Probabilistic Model Checking of Robots Deployed in Extreme Environments. <i>Proceedings of the AAAI Conference on Artificial Intelligence</i> , 2019, 33, 8066-8074.	4.9	21
33	Prognostics and Health Management for the Optimization of Marine Hybrid Energy Systems. <i>Energies</i> , 2020, 13, 4676.	3.1	21
34	A Safety Framework for Critical Systems Utilising Deep Neural Networks. <i>Lecture Notes in Computer Science</i> , 2020, , 244-259.	1.3	21
35	Symbiotic System of Systems Design for Safe and Resilient Autonomous Robotics in Offshore Wind Farms. <i>IEEE Access</i> , 2021, 9, 141421-141452.	4.2	21
36	Automating supply chain negotiations using autonomous agents. , 2006, , .		19

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37	A multi-sectoral approach to modelling community energy demand of the built environment. Energy Policy, 2019, 132, 865-875.	8.8	19
38	Assessing safety-critical systems from operational testing: A study on autonomous vehicles. Information and Software Technology, 2020, 128, 106393.	4.4	19
39	An introduction to the Semantic Web for health sciences librarians. Journal of the Medical Library Association: JMLA, 2006, 94, 198-205.	1.7	18
40	Verifiable Self-Certifying Autonomous Systems. , 2018, , .		17
41	Analysis of Strategic Renewable Energy, Grid and Storage Capacity Investments via Stackelberg-Cournot Modelling. IEEE Access, 2021, 9, 37752-37771.	4.2	17
42	An Overview of the Results and Insights from the Third Automated Negotiating Agents Competition (ANAC2012). Studies in Computational Intelligence, 2014, , 151-162.	0.9	17
43	AI-Driven Maintenance Support for Downhole Tools and Electronics Operated in Dynamic Drilling Environments. IEEE Access, 2020, 8, 78683-78701.	4.2	16
44	Battery Stress Factor Ranking for Accelerated Degradation Test Planning Using Machine Learning. Energies, 2021, 14, 723.	3.1	16
45	Outsmart supply dips in renewable energy. Nature, 2017, 544, 161-161.	27.8	15
46	Train robots to self-certify their safe operation. Nature, 2018, 553, 281-281.	27.8	13
47	IAMhaggler2011: A Gaussian Process Regression Based Negotiation Agent. Studies in Computational Intelligence, 2013, , 209-212.	0.9	13
48	Data analysis of battery storage systems. CIRED - Open Access Proceedings Journal, 2017, 2017, 96-99.	0.1	12
49	Copy neutral loss of heterozygosity in 20q in chronic lymphocytic leukemia/small lymphocytic lymphoma. Cancer Genetics, 2014, 207, 98-102.	0.4	11
50	Design and demonstration of a wireless sensor network platform for substation asset management. CIRED - Open Access Proceedings Journal, 2017, 2017, 105-108.	0.1	11
51	Reliability and Safety of Autonomous Systems Based on Semantic Modelling for Self-Certification. Robotics, 2021, 10, 10.	3.5	11
52	A Machine Learning Degradation Model for Electrochemical Capacitors Operated at High Temperature. IEEE Access, 2021, 9, 25544-25553.	4.2	11
53	Prediction of voltage distribution using deep learning and identified key smart meter locations. Energy and AI, 2021, 6, 100103.	10.6	11
54	Constructing the Structure of Utility Graphs Used in Multi-Item Negotiation Through Collaborative Filtering of Aggregate Buyer Preferences. Studies in Computational Intelligence, 2008, , 147-168.	0.9	11

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55	Real-Time Control of Distributed Batteries With Blockchain-Enabled Market Export Commitments. IEEE Transactions on Sustainable Energy, 2022, 13, 579-591.	8.8	11
56	Optimal Residential Battery Scheduling with Asset Lifespan Consideration. , 2020, , .		10
57	Consider ethical and social challenges in smart grid research. Nature Machine Intelligence, 2019, 1, 548-550.	16.0	9
58	Automating the Verification of the Low Voltage Network Cables and Topologies. IEEE Transactions on Smart Grid, 2020, 11, 1657-1666.	9.0	9
59	Self-Certification and Safety Compliance for Robotics Platforms. , 2020, , .		9
60	Towards Integrating Formal Verification of Autonomous Robots with Battery Prognostics and Health Management. Lecture Notes in Computer Science, 2019, , 105-124.	1.3	9
61	Failure Analysis Informing Embedded Health Monitoring of Electromagnetic Relays. , 2018, , .		8
62	The Complex Dynamics of Sponsored Search Markets. Lecture Notes in Computer Science, 2009, , 183-198.	1.3	8
63	A review of the role of prognostics in predicting the remaining useful life of assets. , 2017, , .		8
64	Accurately Forecasting the Health of Energy System Assets. , 2018, , .		6
65	Predicting the Voltage Distribution for Low Voltage Networks using Deep Learning. , 2019, , .		6
66	Can priced options solve the exposure problem in sequential auctions?. , 2008, 7, 1-4.		6
67	Learning the Structure of Utility Graphs Used in Multi-issue Negotiation through Collaborative Filtering. Lecture Notes in Computer Science, 2009, , 192-206.	1.3	6
68	Designing bidding strategies in sequential auctions for risk averse agents. Multiagent and Grid Systems, 2010, 6, 437-457.	0.9	5
69	Certification of Safe and Trusted Robotic Inspection of Assets. , 2018, , .		5
70	UAS Operators Safety and Reliability Survey: Emerging Technologies towards the Certification of Autonomous UAS. , 2019, , .		5
71	Prognostics for Electromagnetic Relays Using Deep Learning. IEEE Access, 2022, 10, 4861-4895.	4.2	5
72	Optimisation of hybrid energy systems for maritime vessels. Journal of Engineering, 2019, 2019, 4516-4521.	1.1	4

#	ARTICLE	IF	CITATIONS
73	The Application of Machine Learning and Low Frequency Sonar for Subsea Power Cable Integrity Evaluation. , 2019, , .		4
74	Assessment of Decentralized Reactive Power Control Strategies for Low Voltage PV Inverters. , 2019, , .		4
75	Sensing Technologies and Artificial Intelligence for Subsea Power Cable Asset Management. , 2021, , .		4
76	Contract Design for Energy Demand Response. , 2017, , .		4
77	Interval change-point detection for runtime probabilistic model checking. , 2020, , .		4
78	A Systematic Literature Review of Peer-to-Peer, Community Self-Consumption, and Transactive Energy Market Models. SSRN Electronic Journal, 0, , .	0.4	4
79	Decommitment in a Competitive Multi-Agent Transportation Setting. , 2005, , 409-431.		3
80	The Use of Demand Modelling for Community Energy Analysis. , 2018, , .		3
81	The Design of a Fusion Prognostic Model and Health Management System for Subsea Power Cables. , 2019, , .		3
82	Automated Negotiation for Peer-to-Peer Trading of Renewable Energy in Off-Grid Communities. , 2019, , .		3
83	Yield Assessment of Off-grid PV Systems in Nigeria. , 2021, , .		2
84	Designing Bidding Strategies in Sequential Auctions for Risk Averse Agents: A Theoretical and Experimental Investigation. Lecture Notes in Business Information Processing, 2008, , 76-89.	1.0	2
85	Using Priced Options to Solve the Exposure Problem in Sequential Auctions. Lecture Notes in Business Information Processing, 2010, , 29-45.	1.0	2
86	Constructing smart portfolios from data driven quantitative investment models. , 2014, , .		1
87	Game-theoretic modeling of curtailment rules and their effect on transmission line investments. , 2016, , .		1
88	Automated Verification of LV Network Topologies. , 2018, , .		1
89	Gibbs Sampling for Game-Theoretic Modeling of Private Network Upgrades with Distributed Generation. , 2018, , .		1
90	Deep Learning Pipeline for State-of-Health Classification of Electromagnetic Relays. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
91	Market-based task allocation and control for distributed logistics. , 2005, , .		0
92	Using Priced Options to Solve the Exposure Problem in Sequential Auctions. ACM Transactions on Internet Technology, 2012, 12, 1-39.	4.4	0
93	Using Stackelberg Games to Model Electric Power Grid Investments in Renewable Energy Settings. Lecture Notes in Computer Science, 2016, , 127-146.	1.3	0
94	The Complex Dynamics of Sponsored Search Advertising Markets. SSRN Electronic Journal, 0, , .	0.4	0
95	Simulation of Sequential Auction Markets Using Priced Options to Reduce Bidder Exposure. Studies in Computational Intelligence, 2010, , 1-25.	0.9	0
96	Flexibly Priced Options: A New Mechanism for Sequential Auctions with Complementary Goods. Lecture Notes in Business Information Processing, 2012, , 62-75.	1.0	0
97	Efficient methods for approximating the shapley value for asset sharing in energy communities. , 2022, , .		0