Liz Varga

List of Publications by Year
in descending order

55 papers	1,169 citations	471509 17 h-index	414414 32 g-index
55 all docs	55 docs citations	55 times ranked	1330 citing authors

#	Article	IF	Citations
1	Energy and complexity: New ways forward. Applied Energy, 2015, 138, 150-159.	10.1	224
2	Reducing industrial energy demand in the UK: A review of energy efficiency technologies and energy saving potential in selected sectors. Renewable and Sustainable Energy Reviews, 2018, 94, 1153-1178.	16.4	110
3	Towards resource-efficient and service-oriented integrated infrastructure operation. Technological Forecasting and Social Change, 2015, 92, 40-52.	11.6	65
4	A framework for targeting household energy savings through habitual behavioural change. International Journal of Sustainable Energy, 2016, 35, 686-700.	2.4	61
5	Agent based modeling of energy networks. Energy Conversion and Management, 2014, 82, 308-319.	9.2	46
6	A cladistic classification of commercial aerospace supply chain evolution. Journal of Manufacturing Technology Management, 2009, 20, 235-257.	6.4	41
7	Resilience or robustness: identifying topological vulnerabilities in rail networks. Royal Society Open Science, 2019, 6, 181301.	2.4	40
8	A co–Evolutionary Complex Systems Perspective on Information Systems. Journal of Information Technology, 2006, 21, 229-238.	3.9	36
9	Digital Twins in Civil Infrastructure Systems. Sustainability, 2021, 13, 11549.	3.2	35
10	Aerospace Supply Chains as Evolutionary Networks of Activities: Innovation via Risk–Sharing Partnerships. Creativity and Innovation Management, 2008, 17, 304-318.	3.3	30
11	Optimising renewable energy integration in new housing developments with low carbon technologies. Renewable Energy, 2021, 169, 527-540.	8.9	30
12	Anaerobic Digestion of food waste: Eliciting sustainable water-energy-food nexus practices with Agent Based Modelling and visual analytics. Journal of Cleaner Production, 2020, 255, 120060.	9.3	29
13	Infrastructure Interdependencies: Opportunities from Complexity. Journal of Infrastructure Systems, 2020, 26, .	1.8	27
14	Refrigerated warehouses as intelligent hubs to integrate renewable energy in industrial food refrigeration and to enhance power grid sustainability. Trends in Food Science and Technology, 2017, 60, 96-103.	15.1	25
15	Linking energy behaviour, attitude and habits with environmental predisposition and knowledge. International Journal of Sustainable Energy, 2017, 36, 398-414.	2.4	24
16	Nonlinear dynamic simulation and control of large-scale reheating furnace operations using a zone method based model. Applied Thermal Engineering, 2018, 135, 41-53.	6.0	22
17	An agent-based model for energy service companies. Energy Conversion and Management, 2015, 94, 233-244.	9.2	20
18	Engineering Resilient Complex Systems: The Necessary Shift Toward Complexity Science. IEEE Systems Journal, 2020, 14, 3865-3874.	4.6	20

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19	A Review of Methods to Study Resilience of Complex Engineering and Engineered Systems. IEEE Access, 2020, 8, 87775-87799.	4.2	18
20	The evolutionary complexity of social and economic systems: The inevitability of uncertainty and surprise. Risk Management, 2010, 12, 9-30.	2.3	17
21	Model-based multi-objective optimisation of reheating furnace operations using genetic algorithm. Energy Procedia, 2017, 142, 2143-2151.	1.8	17
22	Modelling the diffusion and operation of anaerobic digestions in Great Britain under future scenarios within the scope of water-energy-food nexus. Journal of Cleaner Production, 2020, 253, 119897.	9.3	15
23	5G network deployment and the associated energy consumption in the UK: A complex systems' exploration. Technological Forecasting and Social Change, 2022, 180, 121672.	11.6	15
24	Anaerobic digestion: a prime solution for water, energy and food nexus challenges. Energy Procedia, 2017, 123, 22-29.	1.8	14
25	Modelling and simulation of steel reheating processes under oxy-fuel combustion conditions â€" Technical and environmental perspectives. Energy, 2019, 185, 730-743.	8.8	14
26	Control of Supercritical Organic Rankine Cycle based Waste Heat Recovery System Using Conventional and Fuzzy Self-tuned PID Controllers. International Journal of Control, Automation and Systems, 2019, 17, 2969-2981.	2.7	13
27	Micro-generation technologies and consumption of resources: A complex systems' exploration. Journal of Cleaner Production, 2020, 247, 119091.	9.3	13
28	Fuzzy Nonlinear Dynamic Evaporator Model in Supercritical Organic Rankine Cycle Waste Heat Recovery Systems. Energies, 2018, 11, 901.	3.1	12
29	Single infrastructure utility provision to households: Technological feasibility study. Futures, 2013, 49, 35-48.	2.5	11
30	Characterizing conversion points and complex infrastructure systems: Creating a system representation for agentâ€‹based modeling. Complexity, 2014, 19, 30-43.	1.6	11
31	The uncertainty of systemic risk. Risk Management, 2015, 17, 240-275.	2.3	10
32	Power Generation Expansion Optimization Model Considering Multi-Scenario Electricity Demand Constraints: A Case Study of Zhejiang Province, China. Energies, 2018, 11, 1498.	3.1	10
33	Developing an AHP based decision model for energy systems policy making. , 2013, , .		9
34	Design of Local Services Markets for Pricing DSO-TSO Procurement Coordination. , 2018, , .		9
35	Modelling sustainable energy futures for the UK. Futures, 2014, 57, 28-40.	2.5	8
36	Identifying Adaptation Options and Constraints: The Role of Agronomist Knowledge in Catchment Management Strategy. Water Resources Management, 2014, 28, 511-526.	3.9	7

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37	Energy and Complexity. Complexity, 2018, 2018, 1-2.	1.6	6
38	Network Properties for Robust Multilayer Infrastructure Systems: A Percolation Theory Review. IEEE Access, 2021, 9, 135755-135773.	4.2	6
39	Rethinking Future of Utilities: Supplying All Services through One Sustainable Utility Infrastructure. Environmental Science & Technology, 2012, 46, 5271-5272.	10.0	5
40	Agent-based modeling of the energy network for hybrid cars. Energy Conversion and Management, 2015, 98, 376-386.	9.2	5
41	Evaluating the Bovine Tuberculosis Eradication Mechanism and Its Risk Factors in Englandâ€™s Cattle Farms. International Journal of Environmental Research and Public Health, 2021, 18, 3451.	2.6	5
42	Steering supply chains from aÂcomplex systems perspective. European Journal of Management Studies, 2022, 27, 5-38.	1.6	5
43	Multiutility service companies: A complex systems model of increasing resource efficiency. Complexity, 2016, 21, 23-33.	1.6	4
44	System dynamics of oxyfuel power plants with liquid oxygen energy storage. Energy Procedia, 2017, 142, 3727-3733.	1.8	4
45	Function Value-Based Multi-Objective Optimisation of Reheating Furnace Operations Using Hooke-Jeeves Algorithm. Energies, 2018, 11, 2324.	3.1	4
46	Sustainability from household and infrastructure innovations. Sustainability Science, 2020, 15, 1753-1766.	4.9	4
47	Management Decision-Making: Risk Reduction Through Simulation. Risk Management, 2006, 8, 310-328.	2.3	3
48	Optimal Scheduling of Multi-Carrier Energy Networks Considering Liquid Air Energy Storage. , 2018, , .		3
49	Future utility servicesâ€™ (un)knowns framework: Knowledge existence and knowledge reach. Futures, 2013, 54, 68-86.	2.5	2
50	A Resilience Toolbox and Research Design for Black Sky Hazards to Power Grids. Complexity, 2019, 2019, 1-15.	1.6	2
51	Economic Evaluation of Mental Health Effects of Flooding Using Bayesian Networks. International Journal of Environmental Research and Public Health, 2021, 18, 7467.	2.6	1
52	Analysis of Resilience Situations for Complex Engineered Systems â€" the Resilience Holon. IEEE Systems Journal, 2022, 16, 2265-2276.	4.6	1
53	Transforming Critical Infrastructure. International Journal of E-Planning Research, 2013, 2, 38-49.	1.4	1
54	Towards self-healing in water infrastructure systems. Proceedings of the Institution of Civil Engineers - Smart Infrastructure and Construction, 0, , 1-9.	1.7	0

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55	Infrastructure and city ontologies. Proceedings of the Institution of Civil Engineers - Smart Infrastructure and Construction, 2023, 176, 43-52.	1.7	0