Vahid M Nik

List of Publications by Year
in descending order

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52	2,576	159525	223716
papers	citations	30 h-index	46 g-index

53	53	53	1819
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quantifying the impacts of climate change and extreme climate events on energy systems. Nature Energy, 2020, 5, 150-159.	19.8	309
2	Passive design optimization of newly-built residential buildings in Shanghai for improving indoor thermal comfort while reducing building energy demand. Energy and Buildings, 2018, 169, 484-506.	3.1	197
3	Impacts of future weather data typology on building energy performance â€“ Investigating long-term patterns of climate change and extreme weather conditions. Applied Energy, 2019, 238, 696-720.	5.1	184
4	A review of assessment methods for the urban environment and its energy sustainability to guarantee climate adaptation of future cities. Renewable and Sustainable Energy Reviews, 2019, 112, 733-746.	8.2	128
5	Making energy simulation easier for future climate â€“ Synthesizing typical and extreme weather data sets out of regional climate models (RCMs). Applied Energy, 2016, 177, 204-226.	5.1	123
6	Impact study of the climate change on the energy performance of the building stock in Stockholm considering four climate uncertainties. Building and Environment, 2013, 60, 291-304.	3.0	116
7	Impacts of urban morphology on reducing cooling load and increasing ventilation potential in hot-arid climate. Applied Energy, 2018, 231, 714-746.	5.1	112
8	Electrical hubs: An effective way to integrate non-dispatchable renewable energy sources with minimum impact to the grid. Applied Energy, 2017, 190, 232-248.	5.1	110
9	Climate responsive strategies of traditional dwellings located in an ancient village in hot summer and cold winter region of China. Building and Environment, 2015, 86, 151-165.	3.0	83
10	Redefining energy system flexibility for distributed energy system design. Applied Energy, 2019, 253, 113572.	5.1	68
11	Effective and robust energy retrofitting measures for future climatic conditionsâ€”Reduced heating demand of Swedish households. Energy and Buildings, 2016, 121, 176-187.	3.1	60
12	Climate resilient interconnected infrastructure: Co-optimization of energy systems and urban morphology. Applied Energy, 2021, 285, 116430.	5.1	60
13	Machine learning methods to assist energy system optimization. Applied Energy, 2019, 243, 191-205.	5.1	59
14	Assessment of hygrothermal performance and mould growth risk in ventilated attics in respect to possible climate changes in Sweden. Building and Environment, 2012, 55, 96-109.	3.0	58
15	Climate change and energy performance of European residential building stocks â€“ A comprehensive impact assessment using climate big data from the coordinated regional climate downscaling experiment. Applied Energy, 2021, 298, 117246.	5.1	57
16	An integrated approach to design site specific distributed electrical hubs combining optimization, multi-criterion assessment and decision making. Energy, 2017, 134, 103-120.	4.5	56
17	Future moisture loads for building facades in Sweden: Climate change and wind-driven rain. Building and Environment, 2015, 93, 362-375.	3.0	54
18	Application of typical and extreme weather data sets in the hygrothermal simulation of building components for future climate â€“ A case study for a wooden frame wall. Energy and Buildings, 2017, 154, 30-45.	3.1	50

#	Article	IF	Citations
19	Introducing reinforcement learning to the energy system design process. Applied Energy, 2020, 262, 114580.	5.1	48
20	A novel design-based optimization framework for enhancing the energy efficiency of high-rise office buildings in urban areas. Sustainable Cities and Society, 2019, 49, 101597.	5.1	45
21	Towards climate resilient urban energy systems: a review. National Science Review, 2021, 8, nwaa134.	4.6	45
22	Impacts of Microclimate Conditions on the Energy Performance of Buildings in Urban Areas. Buildings, 2019, 9, 189.	1.4	43
23	A statistical method for assessing retrofitting measures of buildings and ranking their robustness against climate change. Energy and Buildings, 2015, 88, 262-275.	3.1	41
24	A New Framework to Evaluate Urban Design Using Urban Microclimatic Modeling in Future Climatic Conditions. Sustainability, 2018, 10, 1134.	1.6	41
25	High-resolution impact assessment of climate change on building energy performance considering extreme weather events and microclimate â€“ Investigating variations in indoor thermal comfort and degree-days. Sustainable Cities and Society, 2022, 78, 103634.	5.1	39
26	Economic feasibility of building retrofitting mitigation potentials: Climate change uncertainties for Swedish cities. Applied Energy, 2019, 242, 1022-1035.	5.1	38
27	Interactions between extreme climate and urban morphology: Investigating the evolution of extreme wind speeds from mesoscale to microscale. Urban Climate, 2020, 31, 100544.	2.4	38
28	Towards climate robust buildings: An innovative method for designing buildings with robust energy performance under climate change. Energy and Buildings, 2019, 202, 109378.	3.1	34
29	Statistical methods for assessing and analysing the building performance in respect to the future climate. Building and Environment, 2012, 53, 107-118.	3.0	33
30	Straw bale: A Waste from Agriculture, a New Construction Material for Sustainable Buildings. Energy Procedia, 2015, 78, 297-302.	1.8	31
31	Climate Change and Renewable Energy Generation in Europeâ€”Long-Term Impact Assessment on Solar and Wind Energy Using High-Resolution Future Climate Data and Considering Climate Uncertainties. Energies, 2022, 15, 302.	1.6	29
32	Simulations of Moisture Gradients in Wood Subjected to Changes in Relative Humidity and Temperature Due to Climate Change. Geosciences (Switzerland), 2018, 8, 378.	1.0	27
33	Using collective intelligence to enhance demand flexibility and climate resilience in urban areas. Applied Energy, 2021, 281, 116106.	5.1	27
34	Towards realization of an Energy Internet: Designing distributed energy systems using game-theoretic approach. Applied Energy, 2021, 283, 116349.	5.1	27
35	Assessing the Efficiency and Robustness of the Retrofitted Building Envelope Against Climate change. Energy Procedia, 2015, 78, 955-960.	1.8	17
36	Combining computational fluid dynamics and neural networks to characterize microclimate extremes: Learning the complex interactions between meso-climate and urban morphology. Science of the Total Environment, 2022, 829, 154223.	3.9	16

#	ARTICLE	IF	CITATIONS
37	Using Typical and Extreme Weather Files for Impact Assessment of Climate Change on Buildings. Energy Procedia, 2017, 132, 616-621.	1.8	13
38	Optimum design and control of grid integrated electrical hubs considering lifecycle cost and emission. , 2016, , .		12
39	Investigating the importance of future climate typology on estimating the energy performance of buildings in the EPFL campus. Energy Procedia, 2017, 122, 1087-1092.	1.8	12
40	Impacts of extreme climate conditions due to climate change on the energy system design and operation. Energy Procedia, 2019, 159, 358-363.	1.8	8
41	The Importance of Developing Climate-Resilient Pathways for Energy Transition and Climate Change Adaptation. One Earth, 2020, 3, 423-424.	3.6	7
42	Integrating Renewable Energy Technologies into Distributed Energy Systems Maintaining System Flexibility. , 2018, , .		6
43	Optimum design of distributed energy hubs using hybrid surrogate models (HSM). Energy Procedia, 2017, 122, 187-192.	1.8	3
44	Optimization of building form and its fenestration in response to microclimate conditions of an urban area. E3S Web of Conferences, 2020, 172, 19002.	0.2	3
45	Sensitivity of the dispatch strategy in designing grid integrated hybrid energy systems. , 2016, , .		2
46	Design Optimization of Electrical Hubs Using Hybrid Evolutionary Algorithm. , 2016, , .		2
47	Impact assessment of climate change on the energy performance of the building stocks in four European cities. E3S Web of Conferences, 2020, 172, 02008.	0.2	2
48	Linking Neighborhoods into Sustainable Energy Systems. Energy, Environment, and Sustainability, 2019, , 93-110.	0.6	1
49	Future Climate Resilience Through Informed Decision Making in Retrofitting Projects. Lecture Notes in Computer Science, 2020, , 352-364.	1.0	1
50	Empowering energy flexibility and climate resilience using collective intelligence based demand side management (CI-DSM). Journal of Physics: Conference Series, 2021, 2069, 012149.	0.3	1
51	Assessing the Potential of Energy Retrofitting and Renewables in the Campus of Lund University. Springer Proceedings in Energy, 2019, , 519-529.	0.2	0
52	Assessing the climate change adaptation over four European cities. Journal of Physics: Conference Series, 2021, 2069, 012069.	0.3	0