

Giuseppe Peter Vanoli

List of Publications by Year in descending order

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72
papers

3,618
citations

126708

33
h-index

133063

59
g-index

72
all docs

72
docs citations

72
times ranked

3065
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy refurbishment of existing buildings through the use of phase change materials: Energy savings and indoor comfort in the cooling season. <i>Applied Energy</i> , 2014, 113, 990-1007.	5.1	255
2	Green roofs in European climates. Are effective solutions for the energy savings in air-conditioning?. <i>Applied Energy</i> , 2013, 104, 845-859.	5.1	226
3	Simulation-based model predictive control by the multi-objective optimization of building energy performance and thermal comfort. <i>Energy and Buildings</i> , 2016, 111, 131-144.	3.1	180
4	Artificial neural networks to predict energy performance and retrofit scenarios for any member of a building category: A novel approach. <i>Energy</i> , 2017, 118, 999-1017.	4.5	179
5	Energy retrofit of historical buildings: theoretical and experimental investigations for the modelling of reliable performance scenarios. <i>Energy and Buildings</i> , 2011, 43, 1925-1936.	3.1	177
6	Optimization of building envelope design for nZEBs in Mediterranean climate: Performance analysis of residential case study. <i>Applied Energy</i> , 2016, 183, 938-957.	5.1	162
7	Multi-stage and multi-objective optimization for energy retrofitting a developed hospital reference building: A new approach to assess cost-optimality. <i>Applied Energy</i> , 2016, 174, 37-68.	5.1	153
8	A new methodology for investigating the cost-optimality of energy retrofitting a building category. <i>Energy and Buildings</i> , 2015, 107, 456-478.	3.1	150
9	A new methodology for cost-optimal analysis by means of the multi-objective optimization of building energy performance. <i>Energy and Buildings</i> , 2015, 88, 78-90.	3.1	144
10	Energy retrofit of an educational building in the ancient center of Benevento. Feasibility study of energy savings and respect of the historical value. <i>Energy and Buildings</i> , 2015, 95, 172-183.	3.1	137
11	Design of the Building Envelope: A Novel Multi-Objective Approach for the Optimization of Energy Performance and Thermal Comfort. <i>Sustainability</i> , 2015, 7, 10809-10836.	1.6	103
12	Energy retrofit of educational buildings: Transient energy simulations, model calibration and multi-objective optimization towards nearly zero-energy performance. <i>Energy and Buildings</i> , 2017, 144, 303-319.	3.1	102
13	CASA, cost-optimal analysis by multi-objective optimisation and artificial neural networks: A new framework for the robust assessment of cost-optimal energy retrofit, feasible for any building. <i>Energy and Buildings</i> , 2017, 146, 200-219.	3.1	89
14	A new comprehensive framework for the multi-objective optimization of building energy design: Harlequin. <i>Applied Energy</i> , 2019, 241, 331-361.	5.1	86
15	Analysis and diagnosis of the energy performance of buildings and districts: Methodology, validation and development of Urban Energy Maps. <i>Cities</i> , 2013, 35, 270-283.	2.7	83
16	Resilience of robust cost-optimal energy retrofit of buildings to global warming: A multi-stage, multi-objective approach. <i>Energy and Buildings</i> , 2017, 153, 150-167.	3.1	82
17	Fluid selection of Organic Rankine Cycle for low-temperature waste heat recovery based on thermal optimization. <i>Energy</i> , 2014, 72, 159-167.	4.5	74
18	Design the refurbishment of historic buildings with the cost-optimal methodology: The case study of a XV century Italian building. <i>Energy and Buildings</i> , 2015, 99, 162-176.	3.1	72

#	ARTICLE	IF	CITATIONS
19	Multi-objective optimization of the renewable energy mix for a building. Applied Thermal Engineering, 2016, 101, 612-621.	3.0	68
20	Net zero-energy buildings in Germany: Design, model calibration and lessons learned from a case-study in Berlin. Energy and Buildings, 2016, 133, 688-710.	3.1	63
21	Rehabilitation of the building envelope of hospitals: Achievable energy savings and microclimatic control on varying the HVAC systems in Mediterranean climates. Energy and Buildings, 2013, 60, 125-138.	3.1	61
22	A new comprehensive approach for cost-optimal building design integrated with the multi-objective model predictive control of HVAC systems. Sustainable Cities and Society, 2017, 31, 136-150.	5.1	56
23	Green Walls, a Critical Review: Knowledge Gaps, Design Parameters, Thermal Performances and Multi-Criteria Design Approaches. Energies, 2020, 13, 2296.	1.6	48
24	Different methods for the modelling of thermal bridges into energy simulation programs: Comparisons of accuracy for flat heterogeneous roofs in Italian climates. Applied Energy, 2012, 97, 405-418.	5.1	47
25	The design of safe classrooms of educational buildings for facing contagions and transmission of diseases: A novel approach combining audits, calibrated energy models, building performance (BPS) and computational fluid dynamic (CFD) simulations. Energy and Buildings, 2021, 230, 110533.	3.1	45
26	Cool materials for reducing summer energy consumptions in Mediterranean climate: In-lab experiments and numerical analysis of a new coating based on acrylic paint. Applied Thermal Engineering, 2016, 102, 91-107.	3.0	43
27	A framework for NZEB design in Mediterranean climate: Design, building and set-up monitoring of a lab-small villa. Solar Energy, 2019, 184, 11-29.	2.9	40
28	Simplified state space representation for evaluating thermal bridges in building: Modelling, application and validation of a methodology. Applied Thermal Engineering, 2013, 61, 344-354.	3.0	38
29	Experimental validation of a numerical code by thin film heat flux sensors for the resolution of thermal bridges in dynamic conditions. Applied Energy, 2014, 124, 213-222.	5.1	38
30	Dynamic insulation of the building envelope: Numerical modeling under transient conditions and coupling with nocturnal free cooling. Applied Thermal Engineering, 2015, 84, 1-14.	3.0	38
31	MATRIX, a multi activity test-room for evaluating the energy performances of building/HVAC systems in Mediterranean climate: Experimental set-up and CFD/BPS numerical modeling. Energy and Buildings, 2016, 126, 424-446.	3.1	38
32	Evaporation of refrigerants in a smooth horizontal tube: prediction of R22 and R507 heat transfer coefficients and pressure drop. Applied Thermal Engineering, 2004, 24, 2189-2206.	3.0	36
33	Phase Change Materials for Reducing Cooling Energy Demand and Improving Indoor Comfort: A Step-by-Step Retrofit of a Mediterranean Educational Building. Energies, 2019, 12, 3661.	1.6	34
34	Combined cooling, heating and power for small urban districts: An Italian case-study. Applied Thermal Engineering, 2014, 71, 705-713.	3.0	30
35	Impact of weather data and climate change projections in the refurbishment design of residential buildings in cooling dominated climate. Applied Energy, 2021, 303, 117584.	5.1	30
36	University building: Energy diagnosis and refurbishment design with cost-optimal approach. Discussion about the effect of numerical modelling assumptions. Journal of Building Engineering, 2018, 18, 1-18.	1.6	29

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37	A Multi-Criteria Approach to Achieve Constrained Cost-Optimal Energy Retrofits of Buildings by Mitigating Climate Change and Urban Overheating. <i>Climate</i> , 2018, 6, 37.	1.2	29
38	Acrylic white paint of industrial sector for cool roofing application: Experimental investigation of summer behavior and aging problem under Mediterranean climate. <i>Solar Energy</i> , 2018, 169, 468-487.	2.9	25
39	Addressing Large-Scale Energy Retrofit of a Building Stock via Representative Building Samples: Public and Private Perspectives. <i>Sustainability</i> , 2017, 9, 940.	1.6	23
40	Multi-layered wall with vacuum insulation panels: Results of 5-years in-field monitoring and numerical analysis of aging effect on building consumptions. <i>Applied Energy</i> , 2020, 278, 115605.	5.1	23
41	Concept, Design and Energy Performance of a Net Zero-Energy Building in Mediterranean Climate. <i>Procedia Engineering</i> , 2016, 169, 26-37.	1.2	19
42	A Multi-Step Approach to Assess the Lifecycle Economic Impact of Seismic Risk on Optimal Energy Retrofit. <i>Sustainability</i> , 2017, 9, 989.	1.6	19
43	NZEB target for existing buildings: case study of historical educational building in Mediterranean climate. <i>Energy Procedia</i> , 2017, 140, 194-206.	1.8	18
44	Experimental and numerical evaluations on the energy penalty of reflective roofs during the heating season for Mediterranean climate. <i>Energy</i> , 2018, 144, 178-199.	4.5	17
45	Numerical optimization for the design of living walls in the Mediterranean climate. <i>Energy Conversion and Management</i> , 2019, 195, 573-586.	4.4	17
46	Resilience to the climate change of nearly zero energy-building designed according to the EPBD recast: Monitoring, calibrated energy models and perspective simulations of a Mediterranean nZEB living lab. <i>Energy and Buildings</i> , 2022, 262, 112004.	3.1	17
47	Experimental investigation and numerical evaluation of adoption of multi-layered wall with vacuum insulation panel for typical Mediterranean climate. <i>Energy and Buildings</i> , 2017, 152, 108-123.	3.1	15
48	Design and performance analysis of a zero-energy settlement in Greece. <i>International Journal of Low-Carbon Technologies</i> , 2017, 12, 141-161.	1.2	15
49	Hygro-thermal performance of an opaque ventilated facade with recycled materials during wintertime. <i>Energy and Buildings</i> , 2021, 245, 110994.	3.1	15
50	Environmentally friendly opaque ventilated facade for wall retrofit: One year of in-field analysis in Mediterranean climate. <i>Solar Energy</i> , 2021, 228, 495-515.	2.9	14
51	Comprehensive analysis to drive the energy retrofit of a neighborhood by optimizing the solar energy exploitation – An Italian case study. <i>Journal of Cleaner Production</i> , 2021, 314, 127998.	4.6	13
52	Performance Assessment of a Solar-Assisted Desiccant-Based Air Handling Unit Considering Different Scenarios. <i>Energies</i> , 2016, 9, 724.	1.6	12
53	Methodology of the cost-optimality for improving the indoor thermal environment during the warm season. Presentation of the method and application to a new multi-storey building in Berlin. <i>Applied Energy</i> , 2017, 185, 1529-1541.	5.1	12
54	The impact of weather data sources on building energy retrofit design: case study in heating-dominated climate of Italian backcountry. <i>Journal of Building Performance Simulation</i> , 2020, 13, 264-284.	1.0	11

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55	Light and Heavy Energy Refurbishments of Mediterranean Offices. Part II: Cost-optimal Energy Renovation of an Institutional Building. <i>Procedia Engineering</i> , 2017, 180, 1518-1530.	1.2	10
56	A Novel Contribution for Resilient Buildings. Theoretical Fragility Curves: Interaction between Energy and Structural Behavior for Reinforced Concrete Buildings. <i>Buildings</i> , 2020, 10, 194.	1.4	9
57	Multi-Disciplinary Analysis of Light Shelves Application within a Student Dormitory Refurbishment. <i>Sustainability</i> , 2021, 13, 8251.	1.6	8
58	Numerical Investigation of a Thermal Ablation Porous Media-Based Model for Tumoral Tissue with Variable Porosity. <i>Computation</i> , 2021, 9, 50.	1.0	6
59	Energy Audit of Health Care Facilities: Dynamic Simulation of Energy Performances and Energy-Oriented Refurbishment of System and Equipment for Microclimatic Control. <i>American Journal of Engineering and Applied Sciences</i> , 2016, 9, 814-834.	0.3	5
60	Transient heat transfer through walls and thermal bridges. Numerical modelling: Methodology and validation. , 2012, , .		4
61	Building Envelope, HVAC Systems and RESs for the Energy Retrofit of a Conference Hall on Naples Promenade. <i>Energy Procedia</i> , 2015, 75, 1261-1268.	1.8	4
62	Effect of HVACâ€™s Management on Indoor Thermo-Hygrometric Comfort and Energy Balance: In Situ Assessments on a Real nZEB. <i>Energies</i> , 2021, 14, 7187.	1.6	4
63	Evaluation of Comfort Models Considering the Peculiarities of Hospitalization: Bedding, Clothing and Reduced Activity of Patients. <i>Buildings</i> , 2022, 12, 343.	1.4	4
64	A Holistic Approach for Energy Renovation of the Town Hall Building in a Typical Small City of Southern Italy. <i>Sustainability</i> , 2020, 12, 7699.	1.6	3
65	Thermal Dynamic Insulation: Numerical Modeling in a Transient Regime and Application to Alternative Aviary Houses. <i>Energy Procedia</i> , 2015, 75, 1711-1721.	1.8	2
66	Light and Heavy Energy Refurbishments of Mediterranean Offices. Part I: Energy Audit of an Institutional Building on the Naples Coast. <i>Procedia Engineering</i> , 2017, 180, 1506-1517.	1.2	2
67	Effect of Climate Changes on Renewable Production in the Mediterranean Climate: Case Study of the Energy Retrofit for a Detached House. <i>Sustainability</i> , 2021, 13, 8793.	1.6	2
68	Energy Performance of Buildings: improvements, limits and future perspectives during the last twenty years of energy and sustainability policies. , 2021, , .		2
69	Experimental analysis of grills configuration for an open joint ventilated facade in summertime. <i>Journal of Building Engineering</i> , 2022, 54, 104608.	1.6	2
70	Miniaturization of Energy Conversion Systems: Energetic Analysis. , 2005, , .		1
71	Hourly Global Solar Radiation Reconstruction Applying Machine Learning. , 2020, , .		0
72	Experimental Comparison of Heating Emitters in Mediterranean Climate. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 5462.	1.3	0