

Jae-Weon Jeong

List of Publications by Year in descending order

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130
papers

2,660
citations

159358

30
h-index

243296

44
g-index

131
all docs

131
docs citations

131
times ranked

1757
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy saving potential of various air-side economizers in a modular data center. Applied Energy, 2015, 138, 258-275.	5.1	101
2	Occupant behavior regarding the manual control of windows in residential buildings. Energy and Buildings, 2016, 127, 206-216.	3.1	95
3	Effects of types of ventilation system on indoor particle concentrations in residential buildings. Indoor Air, 2014, 24, 629-638.	2.0	91
4	Ceiling radiant cooling panel capacity enhanced by mixed convection in mechanically ventilated spaces. Applied Thermal Engineering, 2003, 23, 2293-2306.	3.0	81
5	Optimization of a free-form building shape to minimize external thermal load using genetic algorithm. Energy and Buildings, 2014, 85, 473-482.	3.1	81
6	Energy saving potential of liquid desiccant in evaporative-cooling-assisted 100% outdoor air system. Energy, 2013, 59, 726-736.	4.5	78
7	Simplified cooling capacity estimation model for top insulated metal ceiling radiant cooling panels. Applied Thermal Engineering, 2004, 24, 2055-2072.	3.0	66
8	Feasibility of wireless measurements for semi-empirical multizone airflow model tuning. Building and Environment, 2008, 43, 1507-1520.	3.0	65
9	Simplified server model to simulate data center cooling energy consumption. Energy and Buildings, 2015, 86, 328-339.	3.1	65
10	Practical thermal performance correlations for molecular sieve and silica gel loaded enthalpy wheels. Applied Thermal Engineering, 2005, 25, 719-740.	3.0	64
11	Annual operating energy savings of liquid desiccant and evaporative-cooling-assisted 100% outdoor air system. Energy and Buildings, 2014, 76, 538-550.	3.1	64
12	Cooling performance of a 100% outdoor air system integrated with indirect and direct evaporative coolers. Energy, 2013, 52, 245-257.	4.5	63
13	Practical cooling capacity estimation model for a suspended metal ceiling radiant cooling panel. Building and Environment, 2007, 42, 3176-3185.	3.0	61
14	Optimum supply air temperature ranges of various air-side economizers in a modular data center. Applied Thermal Engineering, 2015, 77, 163-179.	3.0	60
15	Simplified model for packed-bed tower regenerator in a liquid desiccant system. Applied Thermal Engineering, 2015, 89, 717-726.	3.0	52
16	Experimental analysis of dehumidification performance of counter and cross-flow liquid desiccant dehumidifiers. Applied Thermal Engineering, 2019, 150, 210-223.	3.0	46
17	Operating energy savings in a liquid desiccant and dew point evaporative cooling-assisted 100% outdoor air system. Energy and Buildings, 2016, 116, 535-552.	3.1	44
18	A simplified PEM fuel cell model for building cogeneration applications. Energy and Buildings, 2015, 107, 213-225.	3.1	42

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19	Cooling performance measurement of two cross-flow indirect evaporative coolers in general and regenerative operation modes. <i>Applied Energy</i> , 2017, 195, 268-277.	5.1	40
20	Experimental analysis of dehumidification performance of an evaporative cooling-assisted internally cooled liquid desiccant dehumidifier. <i>Applied Energy</i> , 2019, 235, 177-185.	5.1	39
21	Annual performance evaluation of thermoelectric generator-assisted building-integrated photovoltaic system with phase change material. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 145, 111085.	8.2	38
22	Estimating thermal performance and energy saving potential of residential buildings using utility bills. <i>Energy and Buildings</i> , 2016, 110, 23-30.	3.1	37
23	Impact of integrated hot water cooling and desiccant-assisted evaporative cooling systems on energy savings in a data center. <i>Energy</i> , 2014, 78, 384-396.	4.5	36
24	Phase change material-integrated thermoelectric energy harvesting block as an independent power source for sensors in buildings. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 128, 109921.	8.2	36
25	Energy saving potential of thermoelectric radiant cooling panels with a dedicated outdoor air system. <i>Energy and Buildings</i> , 2018, 169, 353-365.	3.1	35
26	Thermoelectric radiant cooling panel design: Numerical simulation and experimental validation. <i>Applied Thermal Engineering</i> , 2018, 144, 248-261.	3.0	34
27	Applicability of thermoelectric heat pump in a dedicated outdoor air system. <i>Energy</i> , 2019, 173, 244-262.	4.5	33
28	Annual energy harvesting performance of a phase change material-integrated thermoelectric power generation block in building walls. <i>Energy and Buildings</i> , 2020, 228, 110470.	3.1	33
29	Impact of aisle containment on energy performance of a data center when using an integrated water-side economizer. <i>Applied Thermal Engineering</i> , 2016, 105, 372-384.	3.0	31
30	Empirical model for predicting the dehumidification effectiveness of a liquid desiccant system. <i>Energy and Buildings</i> , 2016, 126, 447-454.	3.1	29
31	Empirical analysis of indoor air quality enhancement potential in a liquid-desiccant assisted air conditioning system. <i>Building and Environment</i> , 2017, 121, 11-25.	3.0	28
32	Impact of Mixed Convection on Ceiling Radiant Cooling Panel Capacity. <i>HVAC and R Research</i> , 2003, 9, 251-257.	0.9	27
33	Energy benefit of a dedicated outdoor air system over a desiccant-enhanced evaporative air conditioner. <i>Applied Thermal Engineering</i> , 2016, 108, 804-815.	3.0	24
34	Retrofit of a liquid desiccant and evaporative cooling-assisted 100% outdoor air system for enhancing energy saving potential. <i>Applied Thermal Engineering</i> , 2016, 96, 441-453.	3.0	24
35	Energy benefit of a cascade liquid desiccant dehumidification in a desiccant and evaporative cooling-assisted building air-conditioning system. <i>Applied Thermal Engineering</i> , 2019, 147, 291-301.	3.0	24
36	Energy impact of vacuum-based membrane dehumidification in building air-conditioning applications. <i>Applied Thermal Engineering</i> , 2021, 182, 116094.	3.0	24

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37	Performance of integrated systems of automated roller shade systems and daylight responsive dimming systems. <i>Building and Environment</i> , 2011, 46, 747-757.	3.0	23
38	Precise control of a correlated color temperature tunable luminaire for a suitable luminous environment. <i>Building and Environment</i> , 2012, 57, 302-312.	3.0	23
39	Energy saving potential of thermoelectric modules integrated into liquid desiccant system for solution heating and cooling. <i>Applied Thermal Engineering</i> , 2018, 136, 49-62.	3.0	23
40	Impact of district heat source on primary energy savings of a desiccant-enhanced evaporative cooling system. <i>Energy</i> , 2017, 123, 432-444.	4.5	22
41	Primary energy savings in desiccant and evaporative cooling-assisted 100% outdoor air system combined with a fuel cell. <i>Applied Energy</i> , 2016, 180, 446-456.	5.1	21
42	Energy saving assessment of a desiccant-enhanced evaporative cooling system in variable air volume applications. <i>Applied Thermal Engineering</i> , 2017, 117, 94-108.	3.0	21
43	Evaluation of thermal comfort in an office building served by a liquid desiccant-assisted evaporative cooling air-conditioning system. <i>Energy and Buildings</i> , 2018, 172, 361-370.	3.1	21
44	Case studies of building envelope leakage measurement using an air-handler fan pressurisation approach. <i>Building Services Engineering Research and Technology</i> , 2008, 29, 137-155.	0.9	20
45	Experimental study on the heat exchange effectiveness of a dry coil indirect evaporation cooler under various operating conditions. <i>Energy</i> , 2011, 36, 6479-6489.	4.5	20
46	Practical thermal performance correlations for a wet-coil indirect evaporative cooler. <i>Energy and Buildings</i> , 2015, 96, 285-298.	3.1	20
47	Performance investigation of an independent dedicated outdoor air system for energy-plus houses. <i>Applied Thermal Engineering</i> , 2019, 146, 306-317.	3.0	20
48	Improvement in demand-controlled ventilation simulation on multi-purposed facilities under an occupant based ventilation standard. <i>Simulation Modelling Practice and Theory</i> , 2010, 18, 51-62.	2.2	19
49	Hybrid heat-pump-driven liquid-desiccant system: Experimental performance analysis for residential air-conditioning applications. <i>Applied Thermal Engineering</i> , 2021, 195, 117236.	3.0	19
50	Feasibility of building envelope air leakage measurement using combination of air-handler and blower door. <i>Energy and Buildings</i> , 2013, 62, 436-441.	3.1	18
51	DPHX (dew point evaporative heat exchanger): System design and performance analysis. <i>Energy</i> , 2016, 101, 132-145.	4.5	18
52	Energy conservation potential of an indirect and direct evaporative cooling assisted 100% outdoor air system. <i>Building Services Engineering Research and Technology</i> , 2011, 32, 345-360.	0.9	17
53	Impact of Heat Pump-Driven Liquid Desiccant Dehumidification on the Energy Performance of an Evaporative Cooling-Assisted Air Conditioning System. <i>Energies</i> , 2018, 11, 345.	1.6	17
54	Energy-Saving Benefits of Adiabatic Humidification in the Air Conditioning Systems of Semiconductor Cleanrooms. <i>Energies</i> , 2017, 10, 1774.	1.6	16

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55	Energy benefit of organic Rankine cycle in high-rise apartment building served by centralized liquid desiccant and evaporative cooling-assisted ventilation system. <i>Sustainable Cities and Society</i> , 2020, 60, 102280.	5.1	16
56	Design of heat pump-driven liquid desiccant air conditioning systems for residential building. <i>Applied Thermal Engineering</i> , 2021, 183, 116207.	3.0	16
57	Energy saving potential of a vacuum-based membrane dehumidifier in a dedicated outdoor air system. <i>Energy Conversion and Management</i> , 2021, 227, 113618.	4.4	16
58	Optimum regeneration temperature of a desiccant solution in a packaged liquid desiccant-assisted air conditioning unit. <i>International Journal of Refrigeration</i> , 2019, 101, 155-166.	1.8	15
59	Machine learning algorithms for predicting occupants' behaviour in the manual control of windows for cross-ventilation in homes. <i>Indoor and Built Environment</i> , 2021, 30, 1106-1123.	1.5	15
60	Energy conservation benefit of water-side free cooling in a liquid desiccant and evaporative cooling-assisted 100% outdoor air system. <i>Energy and Buildings</i> , 2015, 104, 302-315.	3.1	14
61	Experimental study on airtightness test methods in large buildings; proposal of averaging pressure difference method. <i>Building and Environment</i> , 2017, 122, 61-71.	3.0	14
62	Experimental verification of a virtual water flowmeter applicable to air conditioning systems. <i>Energy and Buildings</i> , 2017, 155, 425-438.	3.1	14
63	Evaluation of UR-UVGI System for Sterilization Effect on Microorganism Contamination in Negative Pressure Isolation Ward. <i>Sustainability</i> , 2018, 10, 3192.	1.6	14
64	Development of conceptual model of construction factory for automated construction. <i>Building and Environment</i> , 2009, 44, 1634-1642.	3.0	13
65	Energy saving potential of a hybrid ventilation system integrated with heat storage material. <i>Energy and Buildings</i> , 2013, 57, 346-353.	3.1	12
66	Thermal characteristic prediction models for a free-form building in various climate zones. <i>Energy</i> , 2013, 50, 468-476.	4.5	12
67	Application of a phase change material to a thermoelectric ceiling radiant cooling panel as a heat storage layer. <i>Journal of Building Engineering</i> , 2020, 32, 101787.	1.6	12
68	Preliminary study on air-to-air latent heat exchanger fabricated using hollow fiber composite membrane for air-conditioning applications. <i>Energy Conversion and Management</i> , 2022, 251, 115000.	4.4	12
69	Application of desiccant systems for improving the performance of an evaporative cooling-assisted 100% outdoor air system in hot and humid climates. <i>Journal of Building Performance Simulation</i> , 2015, 8, 173-190.	1.0	11
70	Sterilization effectiveness of in-duct ultraviolet germicidal irradiation system in liquid desiccant and indirect/direct evaporative cooling-assisted 100% outdoor air system. <i>Building and Environment</i> , 2020, 186, 107350.	3.0	11
71	Energy benefits of organic Rankine cycle in a liquid desiccant and evaporative cooling-assisted air conditioning system. <i>Renewable Energy</i> , 2020, 147, 2358-2373.	4.3	10
72	Design of a thermoelectric generator-assisted energy harvesting block considering melting temperature of phase change materials. <i>Renewable Energy</i> , 2022, 193, 89-112.	4.3	10

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73	Energy performance of an evaporative cooler assisted 100% outdoor air system in the heating season operation. <i>Energy and Buildings</i> , 2012, 49, 402-409.	3.1	9
74	Applying micro genetic algorithm to numerical model for luminous intensity distribution of planar prism LED luminaire. <i>Optics Communications</i> , 2013, 293, 22-30.	1.0	9
75	Empirical Analysis for the Heat Exchange Effectiveness of a Thermoelectric Liquid Cooling and Heating Unit. <i>Energies</i> , 2018, 11, 580.	1.6	9
76	Energy Performance of Liquid Desiccant and Evaporative Cooling-Assisted 100% Outdoor Air Systems under Various Climatic Conditions. <i>Energies</i> , 2018, 11, 1377.	1.6	9
77	Applicability and energy saving potential of thermoelectric radiant panels in high-speed train cabins. <i>International Journal of Refrigeration</i> , 2019, 104, 229-245.	1.8	9
78	Energy Saving Potential of Radiant Floor Heating Assisted by an Air Source Heat Pump in Residential Buildings. <i>Energies</i> , 2021, 14, 1321.	1.6	9
79	Energy and economic analysis of organic Rankine cycle for liquid desiccant system. <i>Energy</i> , 2022, 241, 122869.	4.5	9
80	Energy performance enhancement in air-source heat pump with a direct evaporative cooler-applied condenser. <i>Case Studies in Thermal Engineering</i> , 2022, 35, 102137.	2.8	9
81	Evaluation of the visibility of colored objects under led lighting with various correlated color temperatures. <i>Color Research and Application</i> , 2017, 42, 78-88.	0.8	8
82	Development of empirical models to predict cooling performance of a thermoelectric radiant panel. <i>Energy and Buildings</i> , 2019, 202, 109387.	3.1	8
83	Simplified effectiveness and number of transfer unit model for a vacuum membrane dehumidifier applied to air conditioning. <i>Applied Thermal Engineering</i> , 2022, 210, 118404.	3.0	8
84	Critical Review of Aerosol Particle Transport Models for Building HVAC Ducts. <i>Journal of Architectural Engineering</i> , 2009, 15, 74-83.	0.8	7
85	Phase-change material-integrated thermoelectric radiant panel: Experimental performance analysis and system design. <i>Applied Thermal Engineering</i> , 2021, 194, 117082.	3.0	7
86	Energy Saving Potential of a Thermoelectric Heat Pump-Assisted Liquid Desiccant System in a Dedicated Outdoor Air System. <i>Energies</i> , 2017, 10, 1306.	1.6	6
87	Indoor Air Quality Enhancement Performance of Liquid Desiccant and Evaporative Cooling-Assisted Air Conditioning Systems. <i>Sustainability</i> , 2019, 11, 1036.	1.6	6
88	Numerical and Experimental Study on the Performance of Thermoelectric Radiant Panel for Space Heating. <i>Materials</i> , 2020, 13, 550.	1.3	6
89	Energy saving potential of a model-predicted frost prevention method for energy recovery ventilators. <i>Applied Thermal Engineering</i> , 2021, 185, 116450.	3.0	6
90	Short Term Prediction of PV Power Output Generation Using Hierarchical Probabilistic Model. <i>Energies</i> , 2021, 14, 2822.	1.6	6

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91	Photopic illuminance-based black-box model for regulation of human circadian rhythm via daylight control. <i>Building and Environment</i> , 2021, 203, 108069.	3.0	6
92	Energy efficiency and economic analysis of variable frequency drive and variable pitch system: A case study of axial fan in hospital. <i>Journal of Building Engineering</i> , 2021, 43, 103213.	1.6	6
93	Development of empirical models to predict latent heat exchange performance for hollow fiber membrane-based ventilation system. <i>Applied Thermal Engineering</i> , 2022, 213, 118686.	3.0	6
94	Operating Energy Savings of a Liquid Desiccant and Evaporative Cooling-Assisted Air-Handling System in Marine Applications. <i>Energies</i> , 2017, 10, 487.	1.6	5
95	Thermoelectric Module Integrated Fuel Cell in a Liquid Desiccant-Assisted Air-Conditioning System. <i>Heat Transfer Engineering</i> , 2020, 41, 779-799.	1.2	5
96	Development of a Building Occupant Survey System with 3D Spatial Information. <i>Sustainability</i> , 2020, 12, 9943.	1.6	5
97	Design and preliminary results of organic rankine cycle for liquid desiccant system. <i>Applied Thermal Engineering</i> , 2020, 178, 115596.	3.0	5
98	Urban Public Service Analysis by GIS-MCDA for Sustainable Redevelopment: A Case Study of a Megacity in Korea. <i>Sustainability</i> , 2021, 13, 1472.	1.6	5
99	Overall Heat Transfer Coefficient of a Korean Traditional Building Envelope Estimated Through Heat Flux Measurement. <i>Journal of Asian Architecture and Building Engineering</i> , 2011, 10, 263-270.	1.2	4
100	Energy Saving Potentials of a 100% Outdoor Air System Integrated with Indirect and Direct Evaporative Coolers for Clean Rooms. <i>Journal of Asian Architecture and Building Engineering</i> , 2012, 11, 399-405.	1.2	4
101	Energy Performance Comparison between Two Liquid Desiccant and Evaporative Cooling-Assisted Air Conditioning Systems. <i>Energies</i> , 2020, 13, 522.	1.6	4
102	Applicability of an organic Rankine cycle for a liquid desiccant-assisted dedicated outdoor air system in apartments. <i>Case Studies in Thermal Engineering</i> , 2021, 28, 101663.	2.8	4
103	A Preliminary Study on the Performance of Daylight Responsive Dimming Systems with Improved Closed-Loop Control Algorithm. <i>LEUKOS - Journal of Illuminating Engineering Society of North America</i> , 2011, 8, 41-59.	1.5	3
104	Mass loading of particles in the supply ducts of mechanical ventilation systems in homes. <i>Building and Environment</i> , 2017, 126, 348-354.	3.0	3
105	Impact of an Ultraviolet Reactor on the Improvement of Air Quality Leaving a Direct Evaporative Cooler. <i>Sustainability</i> , 2018, 10, 1123.	1.6	3
106	A numerical model and validation of phase change material integrated thermoelectric radiant cooling panel. <i>E3S Web of Conferences</i> , 2019, 111, 01001.	0.2	3
107	Energy Performance Comparison between Liquid-Desiccant-Assisted Air Conditioning System and Dedicated Outdoor Air System in Different Climatic Regions. <i>Energies</i> , 2019, 12, 1798.	1.6	3
108	Energy Benefit of Liquid Desiccant-Assisted Humidification in Buildings during Winter Operation. <i>Energies</i> , 2021, 14, 1360.	1.6	3

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109	Energy Saving Potentials of Demand-Controlled Ventilation Based On the Real-Time Traffic Load in Underground Parking Facilities. , 2013, , .		2
110	Experimental evaluation of phase change material in radiant cooling panels integrated with thermoelectric modules. E3S Web of Conferences, 2019, 111, 01002.	0.2	2
111	Energy Performance Evaluation for Exterior Insulation System Consisting of Truss-Form Wire-Frame Mullion Filled with Glass Wool. Energies, 2020, 13, 4486.	1.6	2
112	Sensor minimization method for integrated daylighting control by a mathematical approach. Energy and Buildings, 2020, 214, 109891.	3.1	2
113	Integratation of hot-water cooling and evaporative cooling system for datacenter. , 2014, , 15-20.		2
114	Development of a Numerical Model for the Luminous Intensity Distribution of a Planar Prism LED Luminaire for Applying an Optimization Algorithm. LEUKOS - Journal of Illuminating Engineering Society of North America, 2012, 9, 57-72.	1.5	1
115	Development of Desiccant and Evaporative Cooling Based 100% Outdoor System. , 2013, , .		1
116	Building Envelope Leakage Measurement Using the Air-Handler Fan Pressurization Approach. , 2013, , .		1
117	Energy-saving potential of dedicated outdoor-air system assisted by vacuum-based membrane dehumidifier. E3S Web of Conferences, 2019, 111, 01087.	0.2	1
118	Field measurement of U-value using multiple sensors at test chamber and EIFS building. Journal of Asian Architecture and Building Engineering, 2019, 18, 60-68.	1.2	1
119	Experimental study and prediction model of a liquid desiccant unit for humidification during the heating season. Journal of Building Engineering, 2022, 45, 103549.	1.6	1
120	Inactivation of airborne microbial contaminants by a heat-pump-driven liquid-desiccant air-conditioning system. Journal of Building Engineering, 2022, 50, 104157.	1.6	1
121	Indoor Environmental Quality Survey in Research Institute: A Floor-by-Floor Analysis. Sustainability, 2021, 13, 14067.	1.6	1
122	A Simplified Model for Predicting Dehumidification Effectiveness of a Liquid Desiccant System. , 2013, , .		0
123	Effect of Desiccant Solution Temperature on Regeneration Performance of a Cross-Flow Regenerator. E3S Web of Conferences, 2019, 111, 01086.	0.2	0
124	Passive generation from a novel thermoelectric energy harvesting system model integrated with phase change material. E3S Web of Conferences, 2019, 111, 03060.	0.2	0
125	The development of intelligent aided system for safety assessment of buildings in post-earthquake based on web. , 2014, , 39-44.		0
126	Study on multi-zone airflow model calibration process and validation. , 2014, , 51-56.		0

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127	Commissioning of desiccant and evaporative cooling-assisted 100% outdoor air system. , 2014, , 21-26.		0
128	Empirical Performance Prediction Model for Polymer Electrolyte Membrane Fuel Cell (PEMFC). Journal of the Architectural Institute of Korea Planning & Design, 2015, 31, 203-210.	0.1	0
129	Impact of Air-side Economizer Control Considering Air Quality Index on Variable Air Volume System Performance. International Journal of High-Rise Buildings, 2017, 6, 101-111.	0.4	0
130	Energy-saving in a liquid desiccant dehumidification system with a semipermeable-membrane-assisted dual sump. Case Studies in Thermal Engineering, 2022, , 102294.	2.8	0