Soteris A Kalogirou

List of Publications by Citations

222 papers	17,801 citations	64 h-index	131 g-index
238 ext. papers	20,684 ext. citations	8.5 avg, IF	7.63 L-index

#	Paper	IF	Citations
222	Solar thermal collectors and applications. *Progress in Energy and Combustion Science*, **2004**, 30, 231-295	33.6	1787
221	A review of the applications of nanofluids in solar energy. *International Journal of Heat and Mass Transfer*, **2013**, 57, 582-594	4.9	904
220	Artificial neural networks in renewable energy systems applications: a review. *Renewable and Sustainable Energy Reviews*, **2001**, 5, 373-401	16.2	717
219	Machine learning methods for solar radiation forecasting: A review. *Renewable Energy*, **2017**, 105, 569-582	8.1	715
218	Seawater desalination using renewable energy sources. *Progress in Energy and Combustion Science*, **2005**, 31, 242-281	33.6	663
217	Applications of artificial neural-networks for energy systems. *Applied Energy*, **2000**, 67, 17-35	10.7	624
216	Artificial intelligence techniques for photovoltaic applications: A review. *Progress in Energy and Combustion Science*, **2008**, 34, 574-632	33.6	510
215	Ground heat exchangers—A review of systems, models and applications. *Renewable Energy*, **2007**, 32, 2461-2478	8.1	466
214	The potential of solar industrial process heat applications. *Applied Energy*, **2003**, 76, 337-361	10.7	382
213	Artificial intelligence for the modeling and control of combustion processes: a review. *Progress in Energy and Combustion Science*, **2003**, 29, 515-566	33.6	379
212	Hybrid PV/T solar systems for domestic hot water and electricity production. *Energy Conversion and Management*, **2006**, 47, 3368-3382	10.6	324
211	Artificial neural networks for the prediction of the energy consumption of a passive solar building. *Energy*, **2000**, 25, 479-491	7.9	323
210	Artificial intelligence techniques for sizing photovoltaic systems: A review. *Renewable and Sustainable Energy Reviews*, **2009**, 13, 406-419	16.2	321
209	Photovoltaic thermal (PV/T) collectors: A review. *Applied Thermal Engineering*, **2007**, 27, 275-286	5.8	292
208	Design and construction of a LiBr–water absorption machine. *Energy Conversion and Management*, **2003**, 44, 2483-2508	10.6	256
207	Infrared thermography (IRT) applications for building diagnostics: A review. *Applied Energy*, **2014**, 134, 531-549	10.7	250
206	Applications of artificial neural networks in energy systems. *Energy Conversion and Management*, **1999**, 40, 1073-1087	10.6	223

205	Use of TRNSYS for modelling and simulation of a hybrid pv□thermal solar system for Cyprus. *Renewable Energy*, **2001**, 23, 247-260	8.1	215
204	Thermal performance, economic and environmental life cycle analysis of thermosiphon solar water heaters. *Solar Energy*, **2009**, 83, 39-48	6.8	202
203	Fault detection and diagnosis methods for photovoltaic systems: A review. *Renewable and Sustainable Energy Reviews*, **2018**, 91, 1-17	16.2	197
202	An adaptive wavelet-network model for forecasting daily total solar-radiation. *Applied Energy*, **2006**, 83, 705-722	10.7	196
201	Simulation and optimization of a LiBr solar absorption cooling system with evacuated tube collectors. *Renewable Energy*, **2005**, 30, 1143-1159	8.1	195
200	A detailed thermal model of a parabolic trough collector receiver. *Energy*, **2012**, 48, 298-306	7.9	186
199	Maximum power point tracking using a GA optimized fuzzy logic controller and its FPGA implementation. *Solar Energy*, **2011**, 85, 265-277	6.8	185
198	Application of infrared thermography for the determination of the overall heat transfer coefficient (U-Value) in building envelopes. *Applied Energy*, **2011**, 88, 4358-4365	10.7	181
197	Energy storage for electricity generation and related processes: Technologies appraisal and grid scale applications. *Renewable and Sustainable Energy Reviews*, **2018**, 94, 804-821	16.2	178
196	Optimization of solar systems using artificial neural-networks and genetic algorithms. *Applied Energy*, **2004**, 77, 383-405	10.7	174
195	Modeling and simulation of a stand-alone photovoltaic system using an adaptive artificial neural network: Proposition for a new sizing procedure. *Renewable Energy*, **2007**, 32, 285-313	8.1	159
194	Exergy analysis of solar thermal collectors and processes. *Progress in Energy and Combustion Science*, **2016**, 56, 106-137	33.6	150
193	Sustainable development using renewable energy technology. *Renewable Energy*, **2020**, 146, 2430-2437	8.1	144
192	Measures used to lower building energy consumption and their cost effectiveness. *Applied Energy*, **2002**, 73, 299-328	10.7	136
191	Exergy analysis of lithium bromide/water absorption systems. *Renewable Energy*, **2005**, 30, 645-657	8.1	136
190	On-site PV characterization and the effect of soiling on their performance. *Energy*, **2013**, 51, 439-446	7.9	130
189	Artificial neural network-based model for estimating the produced power of a photovoltaic module. *Renewable Energy*, **2013**, 60, 71-78	8.1	127
188	Exergy analysis on solar thermal systems: A better understanding of their sustainability. *Renewable Energy*, **2016**, 85, 1328-1333	8.1	126

187	Modelling, simulation and warming impact assessment of a domestic-size absorption solar cooling system. *Applied Thermal Engineering*, **2002**, 22, 1313-1325	5.8	126
186	Double skin facades (DSF) and building integrated photovoltaics (BIPV): A review of configurations and heat transfer characteristics. *Renewable Energy*, **2016**, 89, 743-756	8.1	122
185	Modelling and simulation of an absorption solar cooling system for Cyprus. *Solar Energy*, **2002**, 72, 43-51	6.8	122
184	Environmental benefits of domestic solar energy systems. *Energy Conversion and Management*, **2004**, 45, 3075-3092	10.6	121
183	Industrial application of PV/T solar energy systems. *Applied Thermal Engineering*, **2007**, 27, 1259-1270	5.8	119
182	Fault detection method for grid-connected photovoltaic plants. *Renewable Energy*, **2014**, 66, 99-110	8.1	116
181	Survey of solar desalination systems and system selection. *Energy*, **1997**, 22, 69-81	7.9	111
180	A small-scale solar organic Rankine cycle combined heat and power system with integrated thermal energy storage. *Applied Thermal Engineering*, **2017**, 127, 1543-1554	5.8	110
179	MODELING OF SOLAR DOMESTIC WATER HEATING SYSTEMS USING ARTIFICIAL NEURAL NETWORKS. *Solar Energy*, **1999**, 65, 335-342	6.8	110
178	Prediction of flat-plate collector performance parameters using artificial neural networks. *Solar Energy*, **2006**, 80, 248-259	6.8	102
177	Methodology for predicting sequences of mean monthly clearness index and daily solar radiation data in remote areas: Application for sizing a stand-alone PV system. *Renewable Energy*, **2008**, 33, 1570-1590	8.1	99
176	ANFIS-based modelling for photovoltaic power supply system: A case study. *Renewable Energy*, **2011**, 36, 250-258	8.1	97
175	MPPT-based artificial intelligence techniques for photovoltaic systems and its implementation into field programmable gate array chips: Review of current status and future perspectives. *Energy*, **2014**, 70, 1-21	7.9	94
174	Review of solar and low energy cooling technologies for buildings. *Renewable and Sustainable Energy Reviews*, **2002**, 6, 557-572	16.2	93
173	Artificial neural networks used for the performance prediction of a thermosiphon solar water heater. *Renewable Energy*, **1999**, 18, 87-99	8.1	88
172	A review on pulsating heat pipes: From solar to cryogenic applications. *Applied Energy*, **2018**, 222, 475-484	10.7	84
171	Machine learning technology in biodiesel research: A review. *Progress in Energy and Combustion Science*, **2021**, 85, 100904	33.6	84
170	Parabolic trough collector system for low temperature steam generation: Design and performance characteristics. *Applied Energy*, **1996**, 55, 1-19	10.7	83

169	Use of parabolic trough solar energy collectors for sea-water desalination. *Applied Energy*, **1998**, 60, 65-88	10.7	80
168	Parabolic trough collectors for industrial process heat in Cyprus. *Energy*, **2002**, 27, 813-830	7.9	77
167	Evaluation of the application of Phase Change Materials (PCM) on the envelope of a typical dwelling in the Mediterranean region. *Renewable Energy*, **2016**, 97, 24-32	8.1	77
166	A comparison between BNN and regression polynomial methods for the evaluation of the effect of soiling in large scale photovoltaic plants. *Applied Energy*, **2013**, 108, 392-401	10.7	72
165	Design and construction of a one-axis sun-tracking system. *Solar Energy*, **1996**, 57, 465-469	6.8	72
164	Long-term performance prediction of forced circulation solar domestic water heating systems using artificial neural networks. *Applied Energy*, **2000**, 66, 63-74	10.7	71
163	Application of neural networks and genetic algorithms for sizing of photovoltaic systems. *Renewable Energy*, **2010**, 35, 2881-2893	8.1	68
162	Artificial neural networks for the performance prediction of large solar systems. *Renewable Energy*, **2014**, 63, 90-97	8.1	67
161	First in situ determination of the thermal performance of a U-pipe borehole heat exchanger, in Cyprus. *Applied Thermal Engineering*, **2008**, 28, 157-163	5.8	67
160	Intelligent maximum power point trackers for photovoltaic applications using FPGA chip: A comparative study. *Solar Energy*, **2014**, 101, 83-99	6.8	66
159	Thermoeconomic optimization of a LiBr absorption refrigeration system. *Chemical Engineering and Processing: Process Intensification*, **2007**, 46, 1376-1384	3.7	64
158	Generation of typical meteorological year (TMY-2) for Nicosia, Cyprus. *Renewable Energy*, **2003**, 28, 2317-2334	8.1	63
157	Design and simulation of a PV and a PV/Wind standalone energy system to power a household application. *Renewable Energy*, **2012**, 37, 355-363	8.1	61
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155	Artificial neural networks in energy applications in buildings. *International Journal of Low-Carbon Technologies*, **2006**, 1, 201-216	2.8	60
154	Energy analysis of buildings employing thermal mass in Cyprus. *Renewable Energy*, **2002**, 27, 353-368	8.1	59
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151	Artificial neural networks for modelling the starting-up of a solar steam-generator. *Applied Energy*, **1998**, 60, 89-100	10.7	57
150	Thermosiphon solar domestic water heating systems: long-term performance prediction using artificial neural networks. *Solar Energy*, **2000**, 69, 163-174	6.8	57
149	Review of techniques based on artificial neural networks for the electrical characterization of concentrator photovoltaic technology. *Renewable and Sustainable Energy Reviews*, **2017**, 75, 938-953	16.2	56
148	Optimization of the photovoltaic thermal (PV/T) collector absorber. *Solar Energy*, **2011**, 85, 871-880	6.8	56
147	Design and performance characteristics of a parabolic-trough solar-collector system. *Applied Energy* , **1994**, 47, 341-354	10.7	56
146	Modelling, optimisation and performance evaluation of a parabolic trough solar collector steam generation system. *Solar Energy*, **1997**, 60, 49-59	6.8	53
145	Modeling of the modern houses of Cyprus and energy consumption analysis. *Energy*, **2000**, 25, 915-937	7.9	53
144	A new approach using artificial neural networks for determination of the thermodynamic properties of fluid couples. *Energy Conversion and Management*, **2005**, 46, 2405-2418	10.6	52
143	New MPPT method for stand-alone photovoltaic systems operating under partially shaded conditions. *Energy*, **2013**, 55, 1172-1185	7.9	51
142	The characteristics and the energy behaviour of the residential building stock of Cyprus in view of Directive 2002/91/EC. *Energy and Buildings*, **2010**, 42, 2083-2089	7	47
141	Phase change materials (PCMs) integrated into transparent building elements: a review. *Materials for Renewable and Sustainable Energy*, **2015**, 4, 1	4.7	46
140	Environmental assessment of solar thermal systems for the industrial sector. *Journal of Cleaner Production*, **2018**, 176, 99-109	10.3	44
139	Comparison between measured and calculated energy performance for dwellings in a summer dominant environment. *Energy and Buildings*, **2011**, 43, 3099-3105	7	43
138	The geothermal characteristics of the ground and the potential of using ground coupled heat pumps in Cyprus. *Energy*, **2011**, 36, 5027-5036	7.9	42
137	Use of solar Parabolic Trough Collectors for hot water production in Cyprus. A feasibility study. *Renewable Energy*, **1992**, 2, 117-124	8.1	42
136	Waste Heat Recovery in the EU industry and proposed new technologies. *Energy Procedia*, **2019**, 161, 489-496	2.3	41
135	Effect of fuel cost on the price of desalination water: a case for renewables. *Desalination*, **2001**, 138, 137-144	10.3	41
134	Building-façade integrated solar thermal collectors: Energy-economic performance and indoor comfort simulation model of a water based prototype for heating, cooling, and DHW production. *Renewable Energy*, **2019**, 137, 20-36	8.1	41

133	Legislation driven scenarios based on recent construction advancements towards the achievement of nearly zero energy dwellings in the southern European country of Cyprus. *Energy*, **2014**, 66, 588-597	7.9	40
132	Artificial intelligence and internet of things to improve efficacy of diagnosis and remote sensing of solar photovoltaic systems: Challenges, recommendations and future directions. *Renewable and Sustainable Energy Reviews*, **2021**, 143, 110889	16.2	40
131	The impact of the implementation of the European Energy Performance of Buildings Directive on the European building stock: The case of the Cyprus Land Development Corporation. *Energy Policy*, **2017**, 111, 1-8	7.2	39
130	Modeling and assessment of the efficiency of horizontal and vertical ground heat exchangers. *Energy*, **2013**, 58, 655-663	7.9	38
129	Status, barriers and perspectives of building integrated photovoltaic systems. *Energy*, **2020**, 191, 116471	7.9	38
128	Design, construction, performance evaluation and economic analysis of an integrated collector storage system. *Renewable Energy*, **1997**, 12, 179-192	8.1	37
127	Preliminary assessment of waste heat potential in major European industries. *Energy Procedia*, **2017**, 123, 335-345	2.3	36
126	Simulation of a solar domestic water heating system using a time marching model. *Renewable Energy*, **2002**, 27, 441-452	8.1	36
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123	Thermodynamic analysis of absorption systems using artificial neural network. *Renewable Energy*, **2006**, 31, 29-43	8.1	35
122	Performance of solar systems employing collectors with colored absorber. *Energy and Buildings*, **2005**, 37, 824-835	7	34
121	Optimization of effective parameters on solar updraft tower to achieve potential maximum power output: A sensitivity analysis and numerical simulation. *Applied Energy*, **2017**, 195, 725-737	10.7	32
120	Broadband optical absorption of amorphous carbon/Ag nanocomposite films and its potential for solar harvesting applications. *Solar Energy Materials and Solar Cells*, **2013**, 117, 350-356	6.4	31
119	Heat transfer and sensitivity analysis in a double pipe heat exchanger filled with porous medium. *International Journal of Thermal Sciences*, **2017**, 121, 124-137	4.1	31
118	Building integration of solar renewable energy systems towards zero or nearly zero energy buildings. *International Journal of Low-Carbon Technologies*, **2015**, 10, 379-385	2.8	31
117	Exergy analysis of a naturally ventilated Building Integrated Photovoltaic/Thermal (BIPV/T) system. *Renewable Energy*, **2018**, 128, 541-552	8.1	30
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115	Economic analysis of a solar assisted desalination system. *Renewable Energy*, **1997**, 12, 351-367	8.1	29
114	Solar water heating in Cyprus: current status of technology and problems. *Renewable Energy*, **1997**, 10, 107-112	8.1	28
113	Flat-plate collector construction and system configuration to optimize the thermosiphonic effect. *Renewable Energy*, **2014**, 67, 202-206	8.1	26
112	FPGA-based implementation of a real time photovoltaic module simulator. *Progress in Photovoltaics: Research and Applications*, **2010**, 18, 115-127	6.8	26
111	Performance enhancement of an integrated collector storage hot water system. *Renewable Energy*, **1999**, 16, 652-655	8.1	26
110	Economic analysis of solar energy systems using spreadsheets. *Renewable Energy*, **1996**, 9, 1303-1307	8.1	26
109	Estimating the waste heat recovery in the European Union Industry. *Energy, Ecology and Environment*, **2019**, 4, 211-221	3.5	24
108	Solar thermoelectric power generation in Cyprus: Selection of the best system. *Renewable Energy*, **2013**, 49, 278-281	8.1	24
107	Artificial neural networks for the generation of geothermal maps of ground temperature at various depths by considering land configuration. *Energy*, **2012**, 48, 233-240	7.9	24
106	Part I: Thermal analysis of naturally ventilated BIPV system: Experimental investigation and convective heat transfer coefficients estimation. *Solar Energy*, **2018**, 169, 673-681	6.8	23
105	Cyprus energy policy: The road to the 2006 world renewable energy congress trophy. *Renewable Energy*, **2008**, 33, 355-365	8.1	23
104	Comparison of performance and cost effectiveness of solar water heaters at different collector tracking modes in Cyprus and Greece. *Energy Conversion and Management*, **1999**, 40, 1287-1303	10.6	23
103	Siting and building-massing considerations for the urban integration of active solar energy systems. *Renewable Energy*, **2019**, 135, 963-974	8.1	23
102	Optimal economic thickness of various insulation materials for different orientations of external walls considering the wind characteristics. *Energy*, **2015**, 90, 939-952	7.9	22
101	Part II: Thermal analysis of naturally ventilated BIPV system: Modeling and Simulation. *Solar Energy*, **2018**, 169, 682-691	6.8	22
100	Improvement of passive behaviour of existing buildings through the integration of active solar energy systems. *Energy*, **2018**, 163, 1178-1192	7.9	22
99	Thermodynamic analysis of subcooling and superheating effects of alternative refrigerants for vapour compression refrigeration cycles. *International Journal of Energy Research*, **2006**, 30, 323-347	4.5	20
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91	Cyprus solar water heating cluster: A missed opportunity?. *Energy Policy*, **2007**, 35, 3302-3315	7.2	15
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85	Solar Energy Collectors **2009**, 121-217		13
84	Applications of artificial neural-networks for energy systems **2000**, 17-35		13
83	Geothermal properties of the ground in Cyprus and their effect on the efficiency of ground coupled heat pumps. *Renewable Energy*, **2013**, 49, 85-89	8.1	12
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81	A thermal model for reptiles and pelycosaurs. *Journal of Thermal Biology*, **1999**, 24, 1-13	2.9	12
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78	Evolution of domestic dwellings in Cyprus and energy analysis. *Renewable Energy*, **2001**, 23, 219-234	8.1	11
77	Photovoltaic Systems **2014**, 481-540		10
76	Artificial Neural Networks and Genetic Algorithms for the Modeling, Simulation, and Performance Prediction of Solar Energy Systems. *Green Energy and Technology*, **2013**, 225-245	0.6	10
75	Artificial neural networks for predicting air flow in a naturally ventilated test room. *Building Services Engineering Research and Technology*, **2001**, 22, 83-93	2.3	10
74	Exergetic sustainability analysis of municipal solid waste treatment systems: A systematic critical review. *Renewable and Sustainable Energy Reviews*, **2022**, 156, 111975	16.2	10
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71	Solar Thermal Power Systems **2014**, 541-581		9
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68	Natural environment and thermal behaviour of Dimetrodon limbatus. *Journal of Thermal Biology*, **2001**, 26, 15-20	2.9	9
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61	Theoretical and Experimental Analysis of a Salt Gradient Solar Pond with Insulated and Reflective Covers. *Energy Sources, Part A: Recovery, Utilization and Environmental Effects*, **2009**, 31, 985-1003	1.6	6
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58	Performance of Solar Collectors **2014**, 221-256		5
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47	Solar Desalination Systems **2014**, 431-479		4
46	Modeling and Simulation of Passive and Active Solar Thermal Systems **2012**, 357-417		4
45	Solar Selective Coatings **2012**, 301-312		4
44	Development of an Artificial Neural Network Based Fault Diagnostic System of an Electric Car **2000** ,		4

43	Indirect Solar Desalination (MSF, MED, MVC, TVC) **2016**, 283-326		4
42	Hybrid battery-supercapacitor mathematical modeling for PV application using Matlab/Simulink **2018**,		4
41	Introduction to Renewable Energy Powered Desalination **2018**, 3-46		4
40	Implementing artificial neural networks in energy building applications A review **2018**,		4
39	Energy management and modeling of a grid-connected BIPV system with battery energy storage **2019**,		3
38	Industrial Process Heat, Chemistry Applications, and Solar Dryers **2014**, 397-429		3
37	A linear programming approach to the optimal utilization of renewable energy sources in buildings **2017**,		3
36	Solar Space Heating and Cooling Systems **2012**, 449-480		3
35	Solar Thermal Systems **2012**, 1-25		3
34	Solar Space Heating and Cooling **2009**, 315-389		3
33	Solar Desalination Systems **2009**, 421-468		3
32	Neural Network Modeling of Energy Systems **2004**, 291-299		3
31	Waste Heat Recovery Technologies Revisited with Emphasis on New Solutions, Including Heat Pipes, and Case Studies. *Energies*, **2022**, 15, 384	3.1	3
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28	Solar Space Heating and Cooling **2014**, 323-395		2
27	Solar Economic Analysis **2014**, 701-734		2
26	Solar Water Heating Systems **2009**, 251-314		2

25	Industrial Process Heat, Chemistry Applications, and Solar Dryers **2009**, 391-420		2
24	PV roofs as the first step towards 100% RES electricity production for Mediterranean islands: The case of Cyprus. *Smart Energy*, **2021**, 4, 100053		2
23	Artificial Intelligence Techniques for Modern Energy Applications **2010**, 1-39		2
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21	Building-Integrated Solar Thermal Systems **2016**, 713-721		1
20	Solar Water-Heating Systems **2014**, 257-321		1
19	Low Concentration Ratio Solar Collectors **2012**, 149-163		1
18	Solar Economic Analysis **2009**, 665-701		1
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15	Water, the Raw Material for Desalination **2016**, 21-102		1
14	Solar Thermal Systems: Components and Applications Introduction **2020**, 1-1		0
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10	Neural Network Modeling of Energy Systems **2013**,		
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7 Modeling and Simulation of Passive and Active Solar Thermal Systems **2021**,

6 Low Concentration Ratio Solar Collectors **2012**, 183-197

5 Artificial intelligence techniques: Machine learning and deep learning algorithms **2022**, 43-83

4 Forecasting of solar radiation using machine learning and deep learning algorithms **2022**, 85-111

3 Internet of things (IoT) and embedded systems for photovoltaic systems **2022**, 267-329

2 Solar radiation and photovoltaic systems: Modeling and simulation **2022**, 1-41

1 Optimization of photovoltaic systems based on artificial intelligence techniques **2022**, 149-182