Davide Astiaso Garcia

List of Publications by Year
in descending order

104 papers	3,268 citations	136740 32 h-index	189595 50 g-index
105 all docs	105 docs citations	105 times ranked	2546 citing authors

#	Article	IF	Citations
1	A review on energy storage and demand side management solutions in smart energy islands. Renewable and Sustainable Energy Reviews, 2021, 135, 110183.	8.2	147
2	A deep learning-based evolutionary model for short-term wind speed forecasting: A case study of the Lillgrund offshore wind farm. Energy Conversion and Management, 2021, 236, 114002.	4.4	130
3	Short-term electricity price and load forecasting in isolated power grids based on composite neural network and gravitational search optimization algorithm. Applied Energy, 2020, 277, 115503.	5.1	122
4	A Techno-Economic Analysis of solar hydrogen production by electrolysis in the north of Chile and the case of exportation from Atacama Desert to Japan. International Journal of Hydrogen Energy, 2021, 46, 13709-13728.	3.8	111
5	Analysing economic and environmental sustainability related to the use of battery and hydrogen energy storages for increasing the energy independence of small islands. Energy Conversion and Management, 2018, 177, 64-76.	4.4	94
6	A GIS-based model to assess buildings energy consumption and usable solar energy potential in urban areas. Sustainable Cities and Society, 2018, 40, 546-558.	5.1	84
7	How to handle the Hydrogen enriched Natural Gas blends in combustion efficiency measurement procedure of conventional and condensing boilers. Energy, 2017, 123, 615-636.	4.5	80
8	A novel composite neural network based method for wind and solar power forecasting in microgrids. Applied Energy, 2019, 251, 113353.	5.1	67
9	Wind turbine power output prediction using a new hybrid neuro-evolutionary method. Energy, 2021, 229, 120617.	4.5	66
10	A multigeneration cascade system using ground-source energy with cold recovery: 3E analyses and multi-objective optimization. Energy, 2021, 233, 121185.	4.5	66
11	Risk assessment of oil spills along the Mediterranean coast: A sensitivity analysis of the choice of hazard quantification. Science of the Total Environment, 2017, 574, 234-245.	3.9	64
12	Renewable Energies Generation and Carbon Dioxide Emission Forecasting in Microgrids and National Grids using GRNN-GWO Methodology. Energy Procedia, 2019, 159, 154-159.	1.8	61
13	Synergy between smart energy systems simulation tools for greening small Mediterranean islands. Renewable Energy, 2019, 135, 515-524.	4.3	60
14	Energy Contribution of OFMSW (Organic Fraction of Municipal Solid Waste) to Energy-Environmental Sustainability in Urban Areas at Small Scale. Energies, 2017, 10, 229.	1.6	58
15	A preliminary energy and environmental assessment of a micro wind turbine prototype in natural protected areas. Sustainable Energy Technologies and Assessments, 2014, 8, 42-56.	1.7	55
16	Analysis of non-economic barriers for the deployment of hydrogen technologies and infrastructures in European countries. International Journal of Hydrogen Energy, 2017, 42, 6435-6447.	3.8	55
17	Power-to-gas leverage effect on power-to-heat application for urban renewable thermal energy systems. International Journal of Hydrogen Energy, 2018, 43, 23076-23090.	3.8	55
18	Open data and energy analytics - An analysis of essential information for energy system planning, design and operation. Energy, 2020, 213, 118803.	4.5	53

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19	Solar power-to-gas application to an island energy system. Renewable Energy, 2021, 164, 1005-1016.	4.3	53
20	Urban policies and sustainable energy management. Sustainable Cities and Society, 2012, 4, 29-34.	5.1	49
21	Impact of absolute and relative humidity on the performance of mono and poly crystalline silicon photovoltaics; applying artificial neural network. Journal of Cleaner Production, 2020, 276, 123016.	4.6	48
22	Expert Opinion Analysis on Renewable Hydrogen Storage Systems Potential in Europe. Energies, 2016, 9, 963.	1.6	47
23	Air pollution forecasting application based on deep learning model and optimization algorithm. Clean Technologies and Environmental Policy, 2022, 24, 607-621.	2.1	44
24	Green areas management and bioengineering techniques for improving urban ecological sustainability. Sustainable Cities and Society, 2017, 30, 108-117.	5.1	42
25	A GIS-based model to assess electric energy consumptions and usable renewable energy potential in Lazio region at municipality scale. Sustainable Cities and Society, 2019, 46, 101413.	5.1	42
26	Characterizing the fragmentation level of Italianâ€™s National Parks due to transportation infrastructures. Transportation Research, Part D: Transport and Environment, 2015, 36, 18-28.	3.2	41
27	Identification and prioritization of areas with high environmental risk in Mediterranean coastal areas: A flexible approach. Science of the Total Environment, 2017, 590-591, 566-578.	3.9	41
28	Techno-economic analysis and energy modelling as a key enablers for smart energy services and technologies in buildings. Renewable and Sustainable Energy Reviews, 2021, 150, 111490.	8.2	41
29	Wind energy potential analysis using Sentinel-1 satellite: A review and a case study on Mediterranean islands. Renewable and Sustainable Energy Reviews, 2019, 109, 499-513.	8.2	39
30	Nearshore wave energy converters comparison and Mediterranean small island grid integration. Sustainable Energy Technologies and Assessments, 2018, 30, 68-76.	1.7	37
31	Optimized integration of Hydrogen technologies in Island energy systems. Renewable Energy, 2021, 174, 850-864.	4.3	37
32	Techno-economic assessment of reversible Solid Oxide Cell integration to renewable energy systems at building and district scale. Energy Conversion and Management, 2021, 235, 113993.	4.4	36
33	Performance analysis of integrated solar heat pump VRF system for the low energy building in Mediterranean island. Renewable Energy, 2021, 174, 1006-1019.	4.3	35
34	A primary offshore wind farm site assessment using reanalysis data: a case study for Samothraki island. Renewable Energy, 2021, 172, 667-679.	4.3	34
35	Quaternion convolutional long short-term memory neural model with an adaptive decomposition method for wind speed forecasting: North aegean islands case studies. Energy Conversion and Management, 2022, 259, 115590.	4.4	34
36	Wind source potential assessment using Sentinel 1 satellite and a new forecasting model based on machine learning: A case study Sardinia islands. Renewable Energy, 2020, 155, 212-224.	4.3	32

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37	Hybrid systems adoption for lowering historic buildings PFEC (primary fossil energy consumption) - A comparative energy analysis. Renewable Energy, 2018, 117, 414-433.	4.3	31
38	Layout optimisation of offshore wave energy converters using a novel multi-swarm cooperative algorithm with backtracking strategy: A case study from coasts of Australia. Energy, 2022, 239, 122463.	4.5	31
39	Techno-economic assessment of hybrid energy flexibility systems for islandsâ€™ decarbonization: A case study in Italy. Sustainable Energy Technologies and Assessments, 2022, 51, 101929.	1.7	31
40	Cost-Benefit Analysis for Energy Management in Public Buildings: Four Italian Case Studies. Energies, 2016, 9, 522.	1.6	30
41	Renewable energy desalination; a sustainable approach for water scarcity in â€Žarid lands. International Journal of Sustainable Engineering, 2021, 14, 1916-1942.	1.9	30
42	Bottom-up energy system models applied to sustainable islands. Renewable and Sustainable Energy Reviews, 2021, 152, 111625.	8.2	29
43	An Investigation of the Policies and Crucial Sectors of Smart Cities Based on IoT Application. Applied Sciences (Switzerland), 2022, 12, 2672.	1.3	28
44	Methodological Proposal for Optimal Location of Emergency Operation Centers through Multi-Criteria Approach. Sustainability, 2016, 8, 50.	1.6	27
45	Can radiant floor heating systems be used in removable glazed enclosed patios meeting thermal comfort standards?. Building and Environment, 2016, 106, 378-388.	3.0	27
46	Implications of adopting a biodiversity-based vulnerability index versus a shoreline environmental sensitivity index on management and policy planning along coastal areas. Journal of Environmental Management, 2017, 187, 187-200.	3.8	26
47	A Sustainable Energy Distribution Configuration for Microgrids Integrated to the National Grid Using Back-to-Back Converters in a Renewable Power System. Electronics (Switzerland), 2021, 10, 1826.	1.8	25
48	The Oil Spill Hazard Index (OSHI) elaboration. An oil spill hazard assessment concerning Italian hydrocarbons maritime traffic. Ocean and Coastal Management, 2013, 80, 1-11.	2.0	24
49	A novel forecasting model for wind speed assessment using sentinel family satellites images and machine learning method. Renewable Energy, 2021, 179, 2198-2211.	4.3	24
50	Eco friendly service buildings and facilities for sustainable tourism and environmental awareness in protected areas. WIT Transactions on Ecology and the Environment, 2012, , .	0.0	23
51	A Mediterranean Sea Offshore Wind classification using MERRA-2 and machine learning models. Renewable Energy, 2022, 190, 156-166.	4.3	23
52	Analysis of wind farm effects on the surrounding environment: Assessing population trends of breeding passerines. Renewable Energy, 2015, 80, 190-196.	4.3	22
53	Hybrid intelligent strategy for multifactor influenced electrical energy consumption forecasting. Energy Sources, Part B: Economics, Planning and Policy, 2019, 14, 341-358.	1.8	22
54	Estimating the Potential Biomasses Energy Source of Forest and Agricultural Residues in the Cinque Terre Italian National Park. Energy Procedia, 2015, 82, 674-680.	1.8	21

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55	A risk assessment tool for improving safety standards and emergency management in Italian onshore wind farms. Sustainable Energy Technologies and Assessments, 2016, 18, 48-58.	1.7	21
56	The EPLANopt model for Favignana island's energy transition. Energy Conversion and Management, 2021, 241, 114295.	4.4	21
57	Wave power forecasting using an effective decomposition-based convolutional Bi-directional model with equilibrium Nelder-Mead optimiser. Energy, 2022, 256, 124623.	4.5	21
58	Selecting Eco-Friendly Thermal Systems for the â€œVittoriale Degli Italianiâ€•Historic Museum Building. Sustainability, 2015, 7, 12615-12633.	1.6	20
59	An identification and a prioritisation of geographic and temporal data gaps of Mediterranean marine databases. Science of the Total Environment, 2019, 668, 531-546.	3.9	20
60	Correlations of PM10 concentrations in urban areas with vehicle fleet development, rain precipitation and diesel fuel sales. Atmospheric Pollution Research, 2019, 10, 1165-1179.	1.8	20
61	A Combined Fuzzy GMDH Neural Network and Grey Wolf Optimization Application for Wind Turbine Power Production Forecasting Considering SCADA Data. Energies, 2021, 14, 3459.	1.6	20
62	Technologies and strategies to design sustainable tourist accommodations in areas of high environmental value not connected to the electricity grid. International Journal of Sustainable Development and Planning, 2015, 10, 20-28.	0.3	20
63	Air quality in Italian small harbours: a proposed assessment methodology. Rendiconti Lincei, 2013, 24, 309-318.	1.0	19
64	A New Bi-Level Optimisation Framework for Optimising a Multi-Mode Wave Energy Converter Design: A Case Study for the Marettimo Island, Mediterranean Sea. Energies, 2020, 13, 5498.	1.6	19
65	A Hybrid Intelligent Model for the Condition Monitoring and Diagnostics of Wind Turbines Gearbox. IEEE Access, 2021, 9, 89878-89890.	2.6	19
66	A new methodology for offshore wind speed assessment integrating Sentinel-1, ERA-Interim and in-situ measurement. Renewable Energy, 2021, 172, 1301-1313.	4.3	19
67	Numerical Analysis of Thermal, Fluid, and Electrical Performance of a Photovoltaic Thermal Collector at New Micro-Channels Geometry. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	19
68	A Parametric Study of Wave Energy Converter Layouts in Real Wave Models. Energies, 2020, 13, 6095.	1.6	18
69	A new concept for a mini ducted wind turbine system. Renewable Energy, 2021, 175, 610-624.	4.3	18
70	A solar thermal driven ORC-VFR system employed in subtropical Mediterranean climatic building. Energy, 2022, 250, 123819.	4.5	18
71	Hourly energy profile determination technique from monthly energy bills. Building Simulation, 2020, 13, 1235-1248.	3.0	17
72	A SWOT Analysis for Offshore Wind Energy Assessment Using Remote-Sensing Potential. Applied Sciences (Switzerland), 2020, 10, 6398.	1.3	16

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73	A sustainable requalification of bracciano lake waterfront in Trevignano Romano. International Journal of Sustainable Development and Planning, 2015, 10, 155-164.	0.3	16
74	Multi-Mode Wave Energy Converter Design Optimisation Using an Improved Moth Flame Optimisation Algorithm. Energies, 2021, 14, 3737.	1.6	15
75	Comparative study of temperature distribution impact on prediction accuracy of simulation approaches for poly and mono crystalline solar modules. Energy Conversion and Management, 2021, 239, 114221.	4.4	15
76	Eco-architecture and sustainable mobility: an integrated approach in Ladispoli town. WIT Transactions on the Built Environment, 2014, , .	0.0	15
77	Wind Farm Layout Optimization with Different Hub Heights in Manjil Wind Farm Using Particle Swarm Optimization. Applied Sciences (Switzerland), 2021, 11, 9746.	1.3	15
78	A cheap and third-age-friendly home device for monitoring indoor air quality. International Journal of Environmental Science and Technology, 2018, 15, 185-198.	1.8	14
79	Assessment of a urban sustainability and life quality index for elderly. International Journal of Sustainable Development and Planning, 2017, 12, 908-921.	0.3	14
80	Techno-Economic Analysis and New Design of a Photovoltaic Power Plant by a Direct Radiation Amplification System. Sustainability, 2021, 13, 11493.	1.6	14
81	Dynamic Simulation Model of Trans-Critical Carbon Dioxide Heat Pump Application for Boosting Low Temperature Distribution Networks in Dwellings. Energies, 2019, 12, 484.	1.6	13
82	Reuse and Upcycling of Municipal Waste for ZEB Envelope Design in European Urban Areas. Sustainability, 2016, 8, 610.	1.6	12
83	Wind Climate and Wind Power Resource Assessment Based on Gridded Scatterometer Data: A Thracian Sea Case Study. Energies, 2021, 14, 3448.	1.6	12
84	Data-driven load profile modelling for advanced measurement and verification (M&V) in a fully electrified building. Building and Environment, 2022, 221, 109279.	3.0	12
85	Increasing energy production of a ducted wind turbine system. Wind Engineering, 2020, 44, 560-576.	1.1	10
86	Energy and Exergy Analyses on Seasonal Comparative Evaluation of Water Flow Cooling for Improving the Performance of Monocrystalline PV Module in Hot-Arid Climate. Sustainability, 2021, 13, 6084.	1.6	10
87	Analysis of Energy Performance Improvements in Italian Residential Buildings. Energy Procedia, 2015, 82, 855-862.	1.8	8
88	A General Approach for Retrofit of Existing Buildings Towards NZEB: The Windows Retrofit Effects on Indoor Air Quality and the Use of Low Temperature District Heating. , 2018, , .		8
89	Interval prediction algorithm and optimal scenario making model for wind power producers bidding strategy. Optimization and Engineering, 2021, 22, 1807-1829.	1.3	8
90	Coastal and marine impact assessment for the development of an oil spill contingency plan: the case study of the east coast of Sicily. WIT Transactions on Ecology and the Environment, 2011, , .	0.0	8

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91	Planning of flood defence management and rehabilitation of the natural habitat in the downstream part of the river Tiber. WIT Transactions on the Built Environment, 2008, , .	0.0	8
92	Developing and testing a new tool to foster wind energy sector industrial skills. Journal of Cleaner Production, 2021, 282, 124549.	4.6	7
93	Thermophysics Analysis of Office Buildings with a Temperatureâ€“Humidity Coupling Strategy Under Hot-Arid Climatic Conditions. International Journal of Thermophysics, 2021, 42, 1.	1.0	6
94	Impact of the different vehicle fleets on PM10 pollution: Comparison between the ten most populous Italian metropolitan cities for the year 2018. Science of the Total Environment, 2021, 773, 145524.	3.9	6
95	The use of environmental sensitivity indices (ESI) maps for the evaluation of oil spill risk in Mediterranean coastlines and coastal waters. WIT Transactions on Ecology and the Environment, 2007, , .	0.0	6
96	Mid-Term Load Power Forecasting Considering Environment Emission using a Hybrid Intelligent Approach. , 2018, , .		5
97	Green Energy Sources Assessment Using Sentinel-1 Satellite Remote Sensing. Frontiers in Energy Research, 2021, 9, .	1.2	5
98	Skill development in the wind energy sector: A serious game development approach. , 2017, , .		3
99	Innovative Hybrid Energy Systems for Heading Towards NZEB Qualification for Existing Buildings. , 2018, , .		3
100	Assessing the Potential Use of Solar Energy Source in Urban Areas Located in Natural Protected Sites. Natural Resources, 2013, 04, 111-115.	0.2	3
101	Marine Online Platforms of Services to Public End-Usersâ€”The Innovation of the ODYSSEA Project. Remote Sensing, 2022, 14, 572.	1.8	3
102	Data gathering guidelines for the mapping of environmental sensitivity to oil spill of the Italian coastlines. WIT Transactions on the Built Environment, 2008, , .	0.0	2
103	Eco friendly service buildings and facilities for sustainable tourism and environmental awareness in protected areas. WIT Transactions on State-of-the-art in Science and Engineering, 2013, , 131-138.	0.0	2
104	Social and Economic Impact of a Waste-to-Energy Strategy Applied to the Winemaking Chain: A Case Study in the Italian Countryside. , 2019, , .		1