

# Davide Astiaso Garcia

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Air pollution forecasting application based on deep learning model and optimization algorithm. Clean Technologies and Environmental Policy, 2022, 24, 607-621.	2.1	44
2	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
3	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
4	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
5	Marine Online Platforms of Services to Public End-Usersâ€™The Innovation of the ODYSSEA Project. Remote Sensing, 2022, 14, 572.	1.8	3
6	An Investigation of the Policies and Crucial Sectors of Smart Cities Based on IoT Application. Applied Sciences (Switzerland), 2022, 12, 2672.	1.3	28
7	A Mediterranean Sea Offshore Wind classification using MERRA-2 and machine learning models. Renewable Energy, 2022, 190, 156-166.	4.3	23
8	A solar thermal driven ORC-VFR system employed in subtropical Mediterranean climatic building. Energy, 2022, 250, 123819.	4.5	18
9	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
10	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
11	Wave power forecasting using an effective decomposition-based convolutional Bi-directional model with equilibrium Nelder-Mead optimiser. Energy, 2022, 256, 124623.	4.5	21
12	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
13	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
14	Solar power-to-gas application to an island energy system. Renewable Energy, 2021, 164, 1005-1016.	4.3	53
15	Developing and testing a new tool to foster wind energy sector industrial skills. Journal of Cleaner Production, 2021, 282, 124549.	4.6	7
16	A Hybrid Intelligent Model for the Condition Monitoring and Diagnostics of Wind Turbines Gearbox. IEEE Access, 2021, 9, 89878-89890.	2.6	19
17	Interval prediction algorithm and optimal scenario making model for wind power producers bidding strategy. Optimization and Engineering, 2021, 22, 1807-1829.	1.3	8
18	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

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19	Energy and Exergy Analyses on Seasonal Comparative Evaluation of Water Flow Cooling for Improving the Performance of Monocrystalline PV Module in Hot-Arid Climate. <i>Sustainability</i> , 2021, 13, 6084.	1.6	10
20	Techno-economic assessment of reversible Solid Oxide Cell integration to renewable energy systems at building and district scale. <i>Energy Conversion and Management</i> , 2021, 235, 113993.	4.4	36
21	A Combined Fuzzy GMDH Neural Network and Grey Wolf Optimization Application for Wind Turbine Power Production Forecasting Considering SCADA Data. <i>Energies</i> , 2021, 14, 3459.	1.6	20
22	Thermophysics Analysis of Office Buildings with a Temperature-Humidity Coupling Strategy Under Hot-Arid Climatic Conditions. <i>International Journal of Thermophysics</i> , 2021, 42, 1.	1.0	6
23	Impact of the different vehicle fleets on PM10 pollution: Comparison between the ten most populous Italian metropolitan cities for the year 2018. <i>Science of the Total Environment</i> , 2021, 773, 145524.	3.9	6
24	Wind Climate and Wind Power Resource Assessment Based on Gridded Scatterometer Data: A Thracian Sea Case Study. <i>Energies</i> , 2021, 14, 3448.	1.6	12
25	Multi-Mode Wave Energy Converter Design Optimisation Using an Improved Moth Flame Optimisation Algorithm. <i>Energies</i> , 2021, 14, 3737.	1.6	15
26	Renewable energy desalination; a sustainable approach for water scarcity in arid lands. <i>International Journal of Sustainable Engineering</i> , 2021, 14, 1916-1942.	1.9	30
27	Comparative study of temperature distribution impact on prediction accuracy of simulation approaches for poly and mono crystalline solar modules. <i>Energy Conversion and Management</i> , 2021, 239, 114221.	4.4	15
28	A new methodology for offshore wind speed assessment integrating Sentinel-1, ERA-Interim and in-situ measurement. <i>Renewable Energy</i> , 2021, 172, 1301-1313.	4.3	19
29	A primary offshore wind farm site assessment using reanalysis data: a case study for Samothraki island. <i>Renewable Energy</i> , 2021, 172, 667-679.	4.3	34
30	A Sustainable Energy Distribution Configuration for Microgrids Integrated to the National Grid Using Back-to-Back Converters in a Renewable Power System. <i>Electronics (Switzerland)</i> , 2021, 10, 1826.	1.8	25
31	Wind turbine power output prediction using a new hybrid neuro-evolutionary method. <i>Energy</i> , 2021, 229, 120617.	4.5	66
32	Performance analysis of integrated solar heat pump VRF system for the low energy building in Mediterranean island. <i>Renewable Energy</i> , 2021, 174, 1006-1019.	4.3	35
33	The EPLANopt model for Favignana island's energy transition. <i>Energy Conversion and Management</i> , 2021, 241, 114295.	4.4	21
34	Optimized integration of Hydrogen technologies in Island energy systems. <i>Renewable Energy</i> , 2021, 174, 850-864.	4.3	37
35	A new concept for a mini ducted wind turbine system. <i>Renewable Energy</i> , 2021, 175, 610-624.	4.3	18
36	Techno-economic analysis and energy modelling as a key enablers for smart energy services and technologies in buildings. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 150, 111490.	8.2	41

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37	A multigeneration cascade system using ground-source energy with cold recovery: 3E analyses and multi-objective optimization. <i>Energy</i> , 2021, 233, 121185.	4.5	66
38	A novel forecasting model for wind speed assessment using sentinel family satellites images and machine learning method. <i>Renewable Energy</i> , 2021, 179, 2198-2211.	4.3	24
39	Bottom-up energy system models applied to sustainable islands. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 152, 111625.	8.2	29
40	Wind Farm Layout Optimization with Different Hub Heights in Manjil Wind Farm Using Particle Swarm Optimization. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 9746.	1.3	15
41	Techno-Economic Analysis and New Design of a Photovoltaic Power Plant by a Direct Radiation Amplification System. <i>Sustainability</i> , 2021, 13, 11493.	1.6	14
42	Green Energy Sources Assessment Using Sentinel-1 Satellite Remote Sensing. <i>Frontiers in Energy Research</i> , 2021, 9, .	1.2	5
43	Increasing energy production of a ducted wind turbine system. <i>Wind Engineering</i> , 2020, 44, 560-576.	1.1	10
44	Open data and energy analytics - An analysis of essential information for energy system planning, design and operation. <i>Energy</i> , 2020, 213, 118803.	4.5	53
45	Impact of absolute and relative humidity on the performance of mono and poly crystalline silicon photovoltaics; applying artificial neural network. <i>Journal of Cleaner Production</i> , 2020, 276, 123016.	4.6	48
46	A Parametric Study of Wave Energy Converter Layouts in Real Wave Models. <i>Energies</i> , 2020, 13, 6095.	1.6	18
47	Short-term electricity price and load forecasting in isolated power grids based on composite neural network and gravitational search optimization algorithm. <i>Applied Energy</i> , 2020, 277, 115503.	5.1	122
48	Hourly energy profile determination technique from monthly energy bills. <i>Building Simulation</i> , 2020, 13, 1235-1248.	3.0	17
49	A SWOT Analysis for Offshore Wind Energy Assessment Using Remote-Sensing Potential. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 6398.	1.3	16
50	A New Bi-Level Optimisation Framework for Optimising a Multi-Mode Wave Energy Converter Design: A Case Study for the Marettimo Island, Mediterranean Sea. <i>Energies</i> , 2020, 13, 5498.	1.6	19
51	Wind source potential assessment using Sentinel 1 satellite and a new forecasting model based on machine learning: A case study Sardinia islands. <i>Renewable Energy</i> , 2020, 155, 212-224.	4.3	32
52	Social and Economic Impact of a Waste-to-Energy Strategy Applied to the Winemaking Chain: A Case Study in the Italian Countryside. , 2019, , .		1
53	Renewable Energies Generation and Carbon Dioxide Emission Forecasting in Microgrids and National Grids using GRNN-GWO Methodology. <i>Energy Procedia</i> , 2019, 159, 154-159.	1.8	61
54	A novel composite neural network based method for wind and solar power forecasting in microgrids. <i>Applied Energy</i> , 2019, 251, 113353.	5.1	67

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55	Wind energy potential analysis using Sentinel-1 satellite: A review and a case study on Mediterranean islands. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 109, 499-513.	8.2	39
56	An identification and a prioritisation of geographic and temporal data gaps of Mediterranean marine databases. <i>Science of the Total Environment</i> , 2019, 668, 531-546.	3.9	20
57	Dynamic Simulation Model of Trans-Critical Carbon Dioxide Heat Pump Application for Boosting Low Temperature Distribution Networks in Dwellings. <i>Energies</i> , 2019, 12, 484.	1.6	13
58	Correlations of PM10 concentrations in urban areas with vehicle fleet development, rain precipitation and diesel fuel sales. <i>Atmospheric Pollution Research</i> , 2019, 10, 1165-1179.	1.8	20
59	Hybrid intelligent strategy for multifactor influenced electrical energy consumption forecasting. <i>Energy Sources, Part B: Economics, Planning and Policy</i> , 2019, 14, 341-358.	1.8	22
60	Synergy between smart energy systems simulation tools for greening small Mediterranean islands. <i>Renewable Energy</i> , 2019, 135, 515-524.	4.3	60
61	A GIS-based model to assess electric energy consumptions and usable renewable energy potential in Lazio region at municipality scale. <i>Sustainable Cities and Society</i> , 2019, 46, 101413.	5.1	42
62	A cheap and third-age-friendly home device for monitoring indoor air quality. <i>International Journal of Environmental Science and Technology</i> , 2018, 15, 185-198.	1.8	14
63	Hybrid systems adoption for lowering historic buildings PFEC (primary fossil energy consumption) - A comparative energy analysis. <i>Renewable Energy</i> , 2018, 117, 414-433.	4.3	31
64	Mid-Term Load Power Forecasting Considering Environment Emission using a Hybrid Intelligent Approach. , 2018, , .		5
65	Innovative Hybrid Energy Systems for Heading Towards NZEB Qualification for Existing Buildings. , 2018, , .		3
66	Power-to-gas leverage effect on power-to-heat application for urban renewable thermal energy systems. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 23076-23090.	3.8	55
67	Analysing economic and environmental sustainability related to the use of battery and hydrogen energy storages for increasing the energy independence of small islands. <i>Energy Conversion and Management</i> , 2018, 177, 64-76.	4.4	94
68	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
69	Nearshore wave energy converters comparison and Mediterranean small island grid integration. <i>Sustainable Energy Technologies and Assessments</i> , 2018, 30, 68-76.	1.7	37
70	A GIS-based model to assess buildings energy consumption and usable solar energy potential in urban areas. <i>Sustainable Cities and Society</i> , 2018, 40, 546-558.	5.1	84
71	Green areas management and bioengineering techniques for improving urban ecological sustainability. <i>Sustainable Cities and Society</i> , 2017, 30, 108-117.	5.1	42
72	Analysis of non-economic barriers for the deployment of hydrogen technologies and infrastructures in European countries. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 6435-6447.	3.8	55

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73	Identification and prioritization of areas with high environmental risk in Mediterranean coastal areas: A flexible approach. <i>Science of the Total Environment</i> , 2017, 590-591, 566-578.	3.9	41
74	How to handle the Hydrogen enriched Natural Gas blends in combustion efficiency measurement procedure of conventional and condensing boilers. <i>Energy</i> , 2017, 123, 615-636.	4.5	80
75	Skill development in the wind energy sector: A serious game development approach. , 2017, , .		3
76	Risk assessment of oil spills along the Mediterranean coast: A sensitivity analysis of the choice of hazard quantification. <i>Science of the Total Environment</i> , 2017, 574, 234-245.	3.9	64
77	Implications of adopting a biodiversity-based vulnerability index versus a shoreline environmental sensitivity index on management and policy planning along coastal areas. <i>Journal of Environmental Management</i> , 2017, 187, 187-200.	3.8	26
78	Energy Contribution of OFMSW (Organic Fraction of Municipal Solid Waste) to Energy-Environmental Sustainability in Urban Areas at Small Scale. <i>Energies</i> , 2017, 10, 229.	1.6	58
79	Assessment of a urban sustainability and life quality index for elderly. <i>International Journal of Sustainable Development and Planning</i> , 2017, 12, 908-921.	0.3	14
80	Cost-Benefit Analysis for Energy Management in Public Buildings: Four Italian Case Studies. <i>Energies</i> , 2016, 9, 522.	1.6	30
81	Expert Opinion Analysis on Renewable Hydrogen Storage Systems Potential in Europe. <i>Energies</i> , 2016, 9, 963.	1.6	47
82	Methodological Proposal for Optimal Location of Emergency Operation Centers through Multi-Criteria Approach. <i>Sustainability</i> , 2016, 8, 50.	1.6	27
83	Reuse and Upcycling of Municipal Waste for ZEB Envelope Design in European Urban Areas. <i>Sustainability</i> , 2016, 8, 610.	1.6	12
84	A risk assessment tool for improving safety standards and emergency management in Italian onshore wind farms. <i>Sustainable Energy Technologies and Assessments</i> , 2016, 18, 48-58.	1.7	21
85	Can radiant floor heating systems be used in removable glazed enclosed patios meeting thermal comfort standards?. <i>Building and Environment</i> , 2016, 106, 378-388.	3.0	27
86	Estimating the Potential Biomasses Energy Source of Forest and Agricultural Residues in the Cinque Terre Italian National Park. <i>Energy Procedia</i> , 2015, 82, 674-680.	1.8	21
87	Analysis of Energy Performance Improvements in Italian Residential Buildings. <i>Energy Procedia</i> , 2015, 82, 855-862.	1.8	8
88	Selecting Eco-Friendly Thermal Systems for the "Vittoriale Degli Italiani" Historic Museum Building. <i>Sustainability</i> , 2015, 7, 12615-12633.	1.6	20
89	Analysis of wind farm effects on the surrounding environment: Assessing population trends of breeding passerines. <i>Renewable Energy</i> , 2015, 80, 190-196.	4.3	22
90	Characterizing the fragmentation level of Italian National Parks due to transportation infrastructures. <i>Transportation Research, Part D: Transport and Environment</i> , 2015, 36, 18-28.	3.2	41

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91	Technologies and strategies to design sustainable tourist accommodations in areas of high environmental value not connected to the electricity grid. <i>International Journal of Sustainable Development and Planning</i> , 2015, 10, 20-28.	0.3	20
92	A sustainable requalification of bracciano lake waterfront in Trevignano Romano. <i>International Journal of Sustainable Development and Planning</i> , 2015, 10, 155-164.	0.3	16
93	A preliminary energy and environmental assessment of a micro wind turbine prototype in natural protected areas. <i>Sustainable Energy Technologies and Assessments</i> , 2014, 8, 42-56.	1.7	55
94	Eco-architecture and sustainable mobility: an integrated approach in Ladispoli town. <i>WIT Transactions on the Built Environment</i> , 2014, , .	0.0	15
95	The Oil Spill Hazard Index (OSHI) elaboration. An oil spill hazard assessment concerning Italian hydrocarbons maritime traffic. <i>Ocean and Coastal Management</i> , 2013, 80, 1-11.	2.0	24
96	Air quality in Italian small harbours: a proposed assessment methodology. <i>Rendiconti Lincei</i> , 2013, 24, 309-318.	1.0	19
97	Assessing the Potential Use of Solar Energy Source in Urban Areas Located in Natural Protected Sites. <i>Natural Resources</i> , 2013, 04, 111-115.	0.2	3
98	Eco friendly service buildings and facilities for sustainable tourism and environmental awareness in protected areas. <i>WIT Transactions on State-of-the-art in Science and Engineering</i> , 2013, , 131-138.	0.0	2
99	Urban policies and sustainable energy management. <i>Sustainable Cities and Society</i> , 2012, 4, 29-34.	5.1	49
100	Eco friendly service buildings and facilities for sustainable tourism and environmental awareness in protected areas. <i>WIT Transactions on Ecology and the Environment</i> , 2012, , .	0.0	23
101	Coastal and marine impact assessment for the development of an oil spill contingency plan: the case study of the east coast of Sicily. <i>WIT Transactions on Ecology and the Environment</i> , 2011, , .	0.0	8
102	Data gathering guidelines for the mapping of environmental sensitivity to oil spill of the Italian coastlines. <i>WIT Transactions on the Built Environment</i> , 2008, , .	0.0	2
103	Planning of flood defence management and rehabilitation of the natural habitat in the downstream part of the river Tiber. <i>WIT Transactions on the Built Environment</i> , 2008, , .	0.0	8
104	The use of environmental sensitivity indices (ESI) maps for the evaluation of oil spill risk in Mediterranean coastlines and coastal waters. <i>WIT Transactions on Ecology and the Environment</i> , 2007, , .	0.0	6