Gabriel Ibarra-Berastegi

List of Publications by Year in descending order

72 papers	1,538 citations	279798 23 h-index	315739 38 g-index
73 all docs	73 docs citations	73 times ranked	1561 citing authors

#	Article	IF	Citations
1	Regression and multilayer perceptron-based models to forecast hourly O3 and NO2 levels in the Bilbao area. Environmental Modelling and Software, 2006, 21, 430-446.	4.5	202
2	From diagnosis to prognosis for forecasting air pollution using neural networks: Air pollution monitoring in Bilbao. Environmental Modelling and Software, 2008, 23, 622-637.	4.5	104
3	Short-term forecasting of the wave energy flux: Analogues, random forests, and physics-based models. Ocean Engineering, 2015, 104, 530-539.	4.3	97
4	Electricity production, capacity factor, and plant efficiency index at the Mutriku wave farm (2014–2016). Ocean Engineering, 2018, 147, 20-29.	4.3	87
5	Downscaling of surface moisture flux and precipitation in the Ebro Valley (Spain) using analogues and analogues followed by random forests and multiple linear regression. Hydrology and Earth System Sciences, 2011, 15, 1895-1907.	4.9	86
6	Global estimations of wind energy potential considering seasonal air density changes. Energy, 2019, 187, 115938.	8.8	80
7	Validation of IPCC AR4 models over the Iberian Peninsula. Theoretical and Applied Climatology, 2011, 103, 61-79.	2.8	56
8	Wave energy trends over the Bay of Biscay and the consequences for wave energy converters. Energy, 2017, 141, 624-634.	8.8	54
9	Wave energy resource variation off the west coast of Ireland and its impact on realistic wave energy converters' power absorption. Applied Energy, 2018, 224, 205-219.	10.1	50
10	Neural networks as a tool for control and management of a biological reactor for treating hydrogen sulphide. Bioprocess and Biosystems Engineering, 2006, 29, 129-136.	3.4	41
11	Assessment of metal contamination in dregded sediments using fractionation and Self-Organizing Maps. Journal of Hazardous Materials, 2008, 151, 78-85.	12.4	38
12	Sensitivity to the use of 3DVAR data assimilation in a mesoscale model for estimating offshore wind energy potential. A case study of the Iberian northern coastline. Applied Energy, 2016, 180, 617-627.	10.1	37
13	Long-term changes of ozone and traffic in Bilbao. Atmospheric Environment, 2001, 35, 5581-5592.	4.1	34
14	Using 3DVAR data assimilation to measure offshore wind energy potential at different turbine heights in the West Mediterranean. Applied Energy, 2017, 208, 1232-1245.	10.1	33
15	Historical Evolution of the Wave Resource and Energy Production off the Chilean Coast over the 20th Century. Energies, 2018, 11, 2289.	3.1	31
16	Combining random forests and physics-based models to forecast the electricity generated by ocean waves: A case study of the Mutriku wave farm. Ocean Engineering, 2019, 189, 106314.	4.3	28
17	Long-term changes in offshore wind power density and wind turbine capacity factor in the Iberian Peninsula (1900–2010). Energy, 2021, 226, 120364.	8.8	27
18	Assessing spatial variability of SO2 field as detected by an air quality network using Self-Organizing Maps, cluster, and Principal Component Analysis. Atmospheric Environment, 2009, 43, 3829-3836.	4.1	25

#	Article	IF	Citations
19	The Consequences of Air Density Variations over Northeastern Scotland for Offshore Wind Energy Potential. Energies, 2019, 12, 2635.	3.1	25
20	Seasonal Correction of Offshore Wind Energy Potential due to Air Density: Case of the Iberian Peninsula. Sustainability, 2019, 11, 3648.	3.2	25
21	Reduction of the capture width of wave energy converters due to long-term seasonal wave energy trends. Renewable and Sustainable Energy Reviews, 2019, 113, 109267.	16.4	24
22	Optimal strategies of deployment of far offshore co-located wind-wave energy farms. Energy Conversion and Management, 2022, 251, 114914.	9.2	24
23	The role of climatic variability on the short-term fluctuations of octopus captures at the Canary Islands. Fisheries Research, 2010, 102, 258-265.	1.7	23
24	MIDAS: A Benchmarking Multi-Criteria Method for the Identification of Defective Anemometers in Wind Farms. Energies, 2019, 12, 28.	3.1	23
25	Pitch Angle Misalignment Correction Based on Benchmarking and Laser Scanner Measurement in Wind Farms. Energies, 2018, 11, 3357.	3.1	21
26	Biotechnology as an alternative for carbon disulfide treatment in air pollution control. Environmental Reviews, 2010, 18, 321-332.	4.5	20
27	Rise of moist plumes from tall stacks in turbulent and stratified atmospheres. Atmospheric Environment, 1997, 31, 253-269.	4.1	18
28	Evaluation of statistical downscaling in short range precipitation forecasting. Atmospheric Research, 2009, 94, 448-461.	4.1	17
29	Preliminary Acclimation Strategies for Successful Startup in Conventional Biofilters. Journal of the Air and Waste Management Association, 2010, 60, 959-967.	1.9	17
30	Harmonized evaluation of daily precipitation downscaled using SDSM and WRF+WRFDA models over the Iberian Peninsula. Climate Dynamics, 2019, 53, 1413-1433.	3.8	17
31	Evaluating the impact of water supply strategies on p-xylene biodegradation performance in an organic media-based biofilter. Journal of Hazardous Materials, 2011, 185, 1019-1026.	12.4	16
32	Traffic congestion and ozone precursor emissions in Bilbao (Spain). Environmental Science and Pollution Research, 2003, 10, 361-367.	5.3	14
33	Analysis of atmospheric thermodynamics using the R package aiRthermo. Computers and Geosciences, 2019, 122, 113-119.	4.2	11
34	Wave Energy Forecasting at Three Coastal Buoys in the Bay of Biscay. IEEE Journal of Oceanic Engineering, 2016, 41, 923-929.	3.8	9
35	Problem-Based Learning in University Studies on Renewable Energies: Case of a Laboratory Windpump. Sustainability, 2020, 12, 2495.	3.2	9
36	The power flow and the wave energy flux at an operational wave farm: Findings from Mutriku, Bay of Biscay. Ocean Engineering, 2021, 227, 108654.	4.3	9

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37	Multi-objective environmental model evaluation by means of multidimensional kernel density estimators: Efficient and multi-core implementations. Environmental Modelling and Software, 2015, 63, 123-136.	4.5	8
38	Climatology and temporal evolution of the atmospheric semidiurnal tide in present‑day reanalyses. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4614-4626.	3.3	8
39	Moisture Balance Over the Iberian Peninsula According to a Regional Climate Model: The Impact of 3DVAR Data Assimilation. Journal of Geophysical Research D: Atmospheres, 2018, 123, 708-729.	3.3	8
40	Evaluation of Lebanon's Offshore-Wind-Energy Potential. Journal of Marine Science and Engineering, 2019, 7, 361.	2.6	8
41	Rainfall yield characteristics of electrical storm observed in the Spanish Basque Country area during the period 1992‑1996. Atmospheric Research, 2008, 89, 233-242.	4.1	7
42	Using neural networks for short-term prediction of air pollution levels. , 2009, , .		7
43	Comparison of the Performance of Different Analog-Based Bayesian Probabilistic Precipitation Forecasts over Bilbao, Spain. Monthly Weather Review, 2010, 138, 3107-3119.	1.4	7
44	Coupled air‑sea interaction patterns and surface heat‑flux feedback in the Bay of Biscay. Journal of Geophysical Research, 2012, 117, .	3.3	5
45	Atmospheric tides over the Pyrenees: observational study and numerical simulation. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 1263-1274.	2.7	4
46	Seasonal Air Density Variations over The East of Scotland and The Consequences for Offshore Wind Energy. , 2018, , .		4
47	Short-term prediction of air pollution levels using neural networks. WIT Transactions on Ecology and the Environment, 2006, , .	0.0	4
48	Using open source software in engineering studies to teach water operation & management. , 2017, , .		3
49	The Sailor diagram – A new diagram for the verification of two-dimensional vector data from multiple models. Geoscientific Model Development, 2020, 13, 3221-3240.	3.6	3
50	Comparison of the main characteristics of the daily zonally averaged surface air temperature as represented by reanalysis and seven CMIP3 models. Theoretical and Applied Climatology, 2013, 114, 417-436.	2.8	2
51	Sensitivity Studies for a Hybrid Numerical‑Statistical Short-Term Wind and Gust Forecast at Three Locations in the Basque Country (Spain). Atmosphere, 2020, 11, 45.	2.3	2
52	Moisture Recycling over the Iberian Peninsula: The Impact of 3DVAR Data Assimilation. Atmosphere, 2020, 11, 19.	2.3	2
53	Identification of redundant sensors in an air pollution network using cluster analysis and SOM. , 2010, , .		2
54	UN EJEMPLO EDUCATIVO DEL USO DE SOFTWARE LIBRE EN UN MASTER DE INGENIERÃA INDUSTRIAL. Dyna (Spain), 2017, 92, 606-606.	0.2	2

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55	Modeling the removal of hemicellulose from cereal straw at lab-scale using self-organizing maps followed by multiple linear regression. Food and Bioproducts Processing, 2009, 87, 34-39.	3.6	1
56	Calculation of Lebanon offshore wind energy potential using ERA5 reanalysis: impact of seasonal air density changes. , 2019, , .		1
57	Changes in the simulation of atmospheric instability over the Iberian Peninsula due to the use of 3DVAR data assimilation. Hydrology and Earth System Sciences, 2021, 25, 3471-3492.	4.9	1
58	Prediction of air pollution levels using neural networks: influence of spatial variability. , 2008, , .		1
59	Comparison of the Main Features of the Zonally Averaged Surface Air Temperature as Represented by Reanalysis and AR4 Models. , 2015, , 227-237.		1
60	TEACHING RENEWABLE ENERGIES USING FREE SOFTWARE: A CASE STUDY WITH R APPLIED TO OCEAN ENERGY. EDULEARN Proceedings, 2016, , .	0.0	1
61	TEACHING MSC STUDENTS HOW TO HANDLE SATELLITE IMAGES FOR OCEANIC STUDIES USING R. EDULEARN Proceedings, 2016, , .	0.0	1
62	EL USO DE LOS PROGRAMAS R Y EPANET PARA LA ENSEÃ‘ANZA EN LA GESTIÃ"N DEL AGUA A LOS INGENIEROS. Dyna Energia Y Sostenibilidad, 2017, 6, [13 p.]-[13 p.].	0.1	1
63	Analysis of Wells-type turbinesâ€™ operational parameters during winter of 2014 at Mutriku wave farm. , 2019, , .		0
64	Itsas Energia irakasten Rrekin. Ekaia (journal), 2015, , 27-37.	0.0	0
65	TEACHING MARINE ENERGY WITH R. , 2016, , .		0
66	USING OPEN SOFTWARE TO TEACH RESOURCE ASSESSMENT OF RENEWABLE ENERGIES. EDULEARN Proceedings, 2017, , .	0.0	0
67	Using open software to teach resource assessment of renewable energies. , 0, , .		0
68	USE OF QGIS OPEN SOFTWARE TO DEFINE THE LOCAL RENEWABLE ENERGY RESOURCES. A PROJECT BASED LEARNING EXPERIENCE. INTED Proceedings, 2018, , .	0.0	0
69	AIRTHERMO: AN R PACKAGE DESIGNED TO HELP STUDENTS UNDERSTANDING ATMOSPHERIC THERMODYNAMICS. EDULEARN Proceedings, 2018, , .	0.0	0
70	COMBINING PRACTICALS AT A RESEARCH LABORATORY, VISITS TO FACILITIES AND HANDS-ON COMPUTER EXERCISES TO TEACH MARINE ENERGY. , 2019, , .		0
71	LEARNING BY PROJECTS IN THE REM ERASMUS MUNDUS MASTER: AN EDUCATIONAL EXPERIENCE WITH WIND AND WAVES. , 2019, , .		0
72	Satelite bidezko itsas gainazaleko tenperatura eta klorofila kontzentrazioen berreraikitzea. Azken hamarkadetako eta urtaroen zikloaren bilakaera Bizkaiko Golkoan. Ekaia (journal), 0, , 109-124.	0.0	0