

# Paulino JosÃ© GarcÃ­a Nieto

## List of Publications by Year in descending order

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84  
papers

2,017  
citations

236925

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h-index

254184

43  
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85  
all docs

85  
docs citations

85  
times ranked

1983  
citing authors

#	ARTICLE	IF	CITATIONS
1	Support Vector Machines Used to Estimate the Battery State of Charge. IEEE Transactions on Power Electronics, 2013, 28, 5919-5926.	7.9	345
2	PM10 concentration forecasting in the metropolitan area of Oviedo (Northern Spain) using models based on SVM, MLP, VARMA and ARIMA: A case study. Science of the Total Environment, 2018, 621, 753-761.	8.0	142
3	Application of an SVM-based regression model to the air quality study at local scale in the AvilÃ©s urban area (Spain). Mathematical and Computer Modelling, 2011, 54, 1453-1466.	2.0	118
4	A SVM-based regression model to study the air quality at local scale in Oviedo urban area (Northern) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.2	90
5	Battery State-of-Charge Estimator Using the MARS Technique. IEEE Transactions on Power Electronics, 2013, 28, 3798-3805.	7.9	74
6	Forecast of the higher heating value in biomass torrefaction by means of machine learning techniques. Journal of Computational and Applied Mathematics, 2019, 357, 284-301.	2.0	60
7	Prediction of work-related accidents according to working conditions using support vector machines. Applied Mathematics and Computation, 2011, 218, 3539-3552.	2.2	55
8	Turbidity Prediction in a River Basin by Using Artificial Neural Networks: A Case Study in Northern Spain. Water Resources Management, 2014, 28, 319-331.	3.9	52
9	Analysis of lead times of metallic components in the aerospace industry through a supported vector machine model. Mathematical and Computer Modelling, 2010, 52, 1177-1184.	2.0	49
10	Support vector machines and neural networks used to evaluate paper manufactured using Eucalyptus globulus. Applied Mathematical Modelling, 2012, 36, 6137-6145.	4.2	44
11	Hybrid modelling based on support vector regression with genetic algorithms in forecasting the cyanotoxins presence in the Trasona reservoir (Northern Spain). Environmental Research, 2013, 122, 1-10.	7.5	44
12	A comparison of several machine learning techniques for the centerline segregation prediction in continuous cast steel slabs and evaluation of its performance. Journal of Computational and Applied Mathematics, 2018, 330, 877-895.	2.0	44
13	Hybrid PSOâ€™SVM-based method for long-term forecasting of turbidity in the NalÃ³n river basin: A case study in Northern Spain. Ecological Engineering, 2014, 73, 192-200.	3.6	39
14	A new data mining methodology applied to the modelling of the influence of diet and lifestyle on the value of bone mineral density in post-menopausal women. International Journal of Computer Mathematics, 2009, 86, 1878-1887.	1.8	38
15	Water eutrophication assessment relied on various machine learning techniques: A case study in the Englishmen Lake (Northern Spain). Ecological Modelling, 2019, 404, 91-102.	2.5	37
16	Study of cyanotoxins presence from experimental cyanobacteria concentrations using a new data mining methodology based on multivariate adaptive regression splines in Trasona reservoir (Northern) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.2	37
17	A new improved study of cyanotoxins presence from experimental cyanobacteria concentrations in the Trasona reservoir (Northern Spain) using the MARS technique. Science of the Total Environment, 2012, 430, 88-92.	8.0	36
18	Support Vector Machines and Multilayer Perceptron Networks Used to Evaluate the Cyanotoxins Presence from Experimental Cyanobacteria Concentrations in the Trasona Reservoir (Northern Spain). Water Resources Management, 2013, 27, 3457-3476.	3.9	36

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19	A Hybrid PCA-CART-MARS-Based Prognostic Approach of the Remaining Useful Life for Aircraft Engines. <i>Sensors</i> , 2015, 15, 7062-7083.	3.8	36
20	Using multivariate adaptive regression splines and multilayer perceptron networks to evaluate paper manufactured using <i>Eucalyptus globulus</i> . <i>Applied Mathematics and Computation</i> , 2012, 219, 755-763.	2.2	35
21	Air quality parameters outliers detection using functional data analysis in the Langreo urban area (Northern Spain). <i>Applied Mathematics and Computation</i> , 2014, 241, 1-10.	2.2	34
22	Study of the evolution of aerosol emissions from coal-fired power plants due to coagulation, condensation, and gravitational settling and health impact. <i>Journal of Environmental Management</i> , 2006, 79, 372-382.	7.8	33
23	Hard-Rock Stability Analysis for Span Design in Entry-Type Excavations with Learning Classifiers. <i>Materials</i> , 2016, 9, 531.	2.9	32
24	Predictive modelling of the higher heating value in biomass torrefaction for the energy treatment process using machine-learning techniques. <i>Neural Computing and Applications</i> , 2019, 31, 8823-8836.	5.6	32
25	Non-linear numerical analysis of a double-threaded titanium alloy dental implant by FEM. <i>Applied Mathematics and Computation</i> , 2008, 206, 952-967.	2.2	30
26	Prediction of the critical temperature of a superconductor by using the WOA/MARS, Ridge, Lasso and Elastic-net machine learning techniques. <i>Neural Computing and Applications</i> , 2021, 33, 17131-17145.	5.6	27
27	Air Quality Modeling Using the PSO-SVM-Based Approach, MLP Neural Network, and M5 Model Tree in the Metropolitan Area of Oviedo (Northern Spain). <i>Environmental Modeling and Assessment</i> , 2018, 23, 229-247.	2.2	24
28	Approximation to the dynamics of transported parts in a vibratory bowl feeder. <i>Mechanism and Machine Theory</i> , 2009, 44, 2217-2235.	4.5	22
29	Non-linear buckling analysis of a self-weighted metallic roof by FEM. <i>Mathematical and Computer Modelling</i> , 2010, 51, 216-228.	2.0	21
30	A hybrid wavelet kernel SVM-based method using artificial bee colony algorithm for predicting the cyanotoxin content from experimental cyanobacteria concentrations in the Trasona reservoir (Northern Spain). <i>Journal of Computational and Applied Mathematics</i> , 2017, 309, 587-602.	2.0	21
31	Nonlinear air quality modeling using multivariate adaptive regression splines in GijÃ³n urban area (Northern Spain) at local scale. <i>Applied Mathematics and Computation</i> , 2014, 235, 50-65.	2.2	20
32	A hybrid DE optimized wavelet kernel SVR-based technique for algal atypical proliferation forecast in La Barca reservoir: A case study. <i>Journal of Computational and Applied Mathematics</i> , 2020, 366, 112417.	2.0	19
33	Modeling pressure drop produced by different filtering media in microirrigation sand filters using the hybrid ABC-MARS-based approach, MLP neural network and M5 model tree. <i>Computers and Electronics in Agriculture</i> , 2017, 139, 65-74.	7.7	17
34	Estimation of PM10 concentration from air quality data in the vicinity of a major steelworks site in the metropolitan area of AvilÃ©s (Northern Spain) using machine learning techniques. <i>Stochastic Environmental Research and Risk Assessment</i> , 2018, 32, 3287-3298.	4.0	17
35	Nonlinear Air Quality Modeling Using Support Vector Machines in GijÃ³n Urban Area (Northern Spain) at Local Scale. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2013, 14, 291-305.	1.0	14
36	Non-linear analysis of cable networks by FEM and experimental validation. <i>International Journal of Computer Mathematics</i> , 2009, 86, 301-313.	1.8	13

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37	Hybrid PSO-MARS-based model for forecasting a successful growth cycle of the <i>Spirulina platensis</i> from experimental data in open raceway ponds. <i>Ecological Engineering</i> , 2015, 81, 534-542.	3.6	13
38	A New Predictive Model of Centerline Segregation in Continuous Cast Steel Slabs by Using Multivariate Adaptive Regression Splines Approach. <i>Materials</i> , 2015, 8, 3562-3583.	2.9	12
39	Using evolutionary multivariate adaptive regression splines approach to evaluate the eutrophication in the Pozón de la Dolores lake (Northern Spain). <i>Ecological Engineering</i> , 2016, 94, 136-151.	3.6	12
40	Cyanotoxin level prediction in a reservoir using gradient boosted regression trees: a case study. <i>Environmental Science and Pollution Research</i> , 2018, 25, 22658-22671.	5.3	12
41	Air quality modeling in the Oviedo urban area (NW Spain) by using multivariate adaptive regression splines. <i>Environmental Science and Pollution Research</i> , 2015, 22, 6642-6659.	5.3	11
42	Evolution and forecasting of PM10 concentration at the Port of Gijón (Spain). <i>Scientific Reports</i> , 2020, 10, 11716.	3.3	11
43	A new hybrid model to foretell thermal power efficiency from energy performance certificates at residential dwellings applying a Gaussian process regression. <i>Neural Computing and Applications</i> , 2021, 33, 6627-6640.	5.6	11
44	Evaluation of Implementation of Biomass and Solar Resources by Energy Systems in the Coal-Mining Areas of Spain. <i>Energies</i> , 2022, 15, 232.	3.1	11
45	Evaluation of the damage in the vault and portico of the pre-Romanesque chapel of San Salvador de Valdediós using frictional contacts and the finite-element method. <i>International Journal of Computer Mathematics</i> , 2007, 84, 377-393.	1.8	10
46	Hybrid ABC Optimized MARS-Based Modeling of the Milling Tool Wear from Milling Run Experimental Data. <i>Materials</i> , 2016, 9, 82.	2.9	10
47	Modeling of the algal atypical increase in La Barca reservoir using the DE optimized least square support vector machine approach with feature selection. <i>Mathematics and Computers in Simulation</i> , 2019, 166, 461-480.	4.4	9
48	Modeling algal atypical proliferation using the hybrid DE-MARS-based approach and M5 model tree in La Barca reservoir: A case study in northern Spain. <i>Ecological Engineering</i> , 2019, 130, 198-212.	3.6	9
49	A New Predictive Model for Evaluating Chlorophyll-a Concentration in Tanes Reservoir by Using a Gaussian Process Regression. <i>Water Resources Management</i> , 2020, 34, 4921-4941.	3.9	8
50	A New Predictive Model Based on the ABC Optimized Multivariate Adaptive Regression Splines Approach for Predicting the Remaining Useful Life in Aircraft Engines. <i>Energies</i> , 2016, 9, 409.	3.1	7
51	A methodology for detecting relevant single nucleotide polymorphism in prostate cancer with multivariate adaptive regression splines and backpropagation artificial neural networks. <i>Neural Computing and Applications</i> , 2020, 32, 1231-1238.	5.6	7
52	A new predictive model for the outlet turbidity in micro-irrigation sand filters fed with effluents using Gaussian process regression. <i>Computers and Electronics in Agriculture</i> , 2020, 170, 105292.	7.7	7
53	An economic dispatch algorithm of combined cycle units. <i>International Journal of Computer Mathematics</i> , 2014, 91, 269-277.	1.8	6
54	Analysis and detection of functional outliers in water quality parameters from different automated monitoring stations in the Nalón River Basin (Northern Spain). <i>Environmental Science and Pollution Research</i> , 2015, 22, 387-396.	5.3	6

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55	Predicting Benzene Concentration Using Machine Learning and Time Series Algorithms. <i>Mathematics</i> , 2020, 8, 2205.	2.2	6
56	Modelling algal abnormal proliferation in a reservoir using support vector regression: a case study. <i>Ecohydrology</i> , 2015, 8, 1109-1118.	2.4	5
57	Predictive model of gas consumption and air emissions of a lime kiln in a kraft process using the ABC/MARS-based technique. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 100, 1549-1562.	3.0	5
58	Study of a Steel's Energy Absorption System for Heavy Quadricycles and Nonlinear Explicit Dynamic Analysis of its Behavior under Impact by FEM. <i>Materials</i> , 2015, 8, 6893-6908.	2.9	4
59	A new predictive model for the cyanotoxin content from experimental cyanobacteria concentrations in a reservoir based on the ABC optimized support vector machine approach: A case study in Northern Spain. <i>Ecological Informatics</i> , 2015, 30, 49-59.	5.2	4
60	Detection of outliers in pollutant emissions from the Soto de Ribera coal-fired power plant using functional data analysis: a case study in northern Spain. <i>Environmental Science and Pollution Research</i> , 2020, 27, 8-20.	5.3	4
61	Analytic Solution of the Aerosol Rigorous General Dynamic Equation Without Coagulation in Multidimension. <i>Aerosol Science and Technology</i> , 1999, 31, 3-16.	3.1	3
62	Numerical Analysis of the Behaviour of Tooth Intrarradial Posts by the Finite Element Method. <i>Mathematical Modelling and Algorithms</i> , 2005, 4, 275-287.	0.5	3
63	Optimization Based on Design of Experiments (DOE) Using Finite Element Model (FEM) Analysis Applied to Retrofitting the Church of Baldornon, Spain. <i>International Journal of Architectural Heritage</i> , 2012, 6, 436-451.	3.1	3
64	A Hybrid Predictive Approach for Chromium Layer Thickness in the Hard Chromium Plating Process Based on the Differential Evolution/Gradient Boosted Regression Tree Methodology. <i>Mathematics</i> , 2020, 8, 959.	2.2	3
65	Modeling algal atypical proliferation in La Barca reservoir using L-SHADE optimized gradient boosted regression trees: a case study. <i>Neural Computing and Applications</i> , 2021, 33, 7821-7838.	5.6	3
66	The Goodness of the Internally Mixed Aerosol Assumption Under Condensation-Evaporation. <i>Aerosol Science and Technology</i> , 1999, 31, 17-23.	3.1	2
67	Optimization of an acoustic test chamber involving the fluid-structure interaction by FEM and experimental validation. <i>Meccanica</i> , 2010, 45, 705-722.	2.0	2
68	Determination and study of lead times of metallic components in the aerospace industry through a Cox-type hazard model. <i>International Journal of Computer Mathematics</i> , 2012, 89, 1901-1913.	1.8	2
69	FEM-based Numerical Simulation of Water Flow Through a Road Shoulder Structure. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2014, 15, 57-67.	1.0	2
70	The operation of infimal/supremal convolution in mathematical economics. <i>International Journal of Computer Mathematics</i> , 2016, 93, 735-748.	1.8	2
71	Analysis and study of an automobile rear seat by FEM. <i>International Journal of Computer Mathematics</i> , 2009, 86, 640-664.	1.8	1
72	Analysis and thermal optimization of an ecological ventilated self-weighted wood panel for roofs by FVM. <i>Meccanica</i> , 2010, 45, 619-634.	2.0	1

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73	Analysis of Cyanotoxins Presence from Experimental Cyanobacteria Concentrations in the Trasona Reservoir (Northern Spain) Using Support Vector Regression. International Journal of Nonlinear Sciences and Numerical Simulation, 2013, 14, 103-112.	1.0	1
74	Detection of Outliers in Pollutant Emissions from the Soto de Ribera Coal-Fired Plant Using Functional Data Analysis: A Case Study in Northern Spain. Proceedings (mdpi), 2018, 2, .	0.2	1
75	A Multivariate Approach to Time Series Forecasting of Copper Prices with the Help of Multiple Imputation by Chained Equations and Multivariate Adaptive Regression Splines. Advances in Intelligent Systems and Computing, 2021, , 691-701.	0.6	1
76	Modeling eutrophication risks in Tanes reservoir by using a hybrid WOA optimized SVR-relied technique along with feature selection based on the MARS approximation. Stochastic Environmental Research and Risk Assessment, 0, , 1.	4.0	1
77	Mathematical study of the selective removal of different classes of atmospheric aerosols by coagulation, condensation, and gravitational settling, and the health impact. International Journal of Computer Mathematics, 2008, 85, 447-460.	1.8	0
78	Numerical Study of Pressure Field in Laterally Closed Industrial Buildings with Curved Metallic Roofs due to the Wind Effect by FEM and European Rule Comparison. , 2009, , .		0
79	PM10 modeling in the Oviedo urban area (Northern Spain) by using multivariate adaptive regression splines. , 2014, , .		0
80	Modeling the milling tool wear by using an evolutionary SVM-based model from milling runs experimental data. AIP Conference Proceedings, 2015, , .	0.4	0
81	Modelling energy performance using a new hybrid DE/MARS-based approach for fossil-fuel thermal power stations. Environmental Science and Pollution Research, 2021, 28, 4417-4429.	5.3	0
82	Time Series Analysis for the COMEX Gold Spot Price Forecasting by Using NARX DE/SVR and DE/GPR Techniques. Advances in Intelligent Systems and Computing, 2022, , 145-154.	0.6	0
83	Time Series Forecasting of Gold Prices with the Help of Its Decomposition and Multivariate Adaptive Regression Splines. Advances in Intelligent Systems and Computing, 2022, , 135-144.	0.6	0
84	Time Series Analysis for the COMEX Copper Spot Price by Using Support Vector Regression. Advances in Intelligent Systems and Computing, 2021, , 702-708.	0.6	0