

Esperanza Garcia-Gonzalo

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

74
papers

1,568
citations

20
h-index

38
g-index

79
ext. papers

1,929
ext. citations

3.4
avg, IF

5.06
L-index

| # | Paper | IF | Citations |
|----|--|-----|-----------|
| 74 | Time Series Analysis for the COMEX Gold Spot Price Forecasting by Using NARX DE/SVR and DE/GPR Techniques. <i>Advances in Intelligent Systems and Computing</i> , 2022 , 145-154 | 0.4 | |
| 73 | Time Series Forecasting of Gold Prices with the Help of Its Decomposition and Multivariate Adaptive Regression Splines. <i>Advances in Intelligent Systems and Computing</i> , 2022 , 135-144 | 0.4 | |
| 72 | A Multivariate Approach to Time Series Forecasting of Copper Prices with the Help of Multiple Imputation by Chained Equations and Multivariate Adaptive Regression Splines. <i>Advances in Intelligent Systems and Computing</i> , 2021 , 691-701 | 0.4 | 0 |
| 71 | Time Series Analysis for the COMEX Copper Spot Price by Using Support Vector Regression. <i>Advances in Intelligent Systems and Computing</i> , 2021 , 702-708 | 0.4 | |
| 70 | 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 | 4.8 | 3 |
| 69 | Modelling energy performance using a new hybrid DE/MARS-based approach for fossil-fuel thermal power stations. <i>Environmental Science and Pollution Research</i> , 2021 , 28, 4417-4429 | 5.1 | |
| 68 | 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 | 4.8 | 1 |
| 67 | 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 | 4.8 | 0 |
| 66 | 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 | 3.7 | 2 |
| 65 | Prediction of outlet dissolved oxygen in micro-irrigation sand media filters using a Gaussian process regression. <i>Biosystems Engineering</i> , 2020 , 195, 198-207 | 4.8 | 9 |
| 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 | 2.3 | 1 |
| 63 | 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 | 6.5 | 3 |
| 62 | Missing Data Imputation for Continuous Variables Based on Multivariate Adaptive Regression Splines. <i>Lecture Notes in Computer Science</i> , 2020 , 73-85 | 0.9 | |
| 61 | Evolution and forecasting of PM10 concentration at the Port of Gijon (Spain). <i>Scientific Reports</i> , 2020 , 10, 11716 | 4.9 | 5 |
| 60 | Predicting Benzene Concentration Using Machine Learning and Time Series Algorithms. <i>Mathematics</i> , 2020 , 8, 2205 | 2.3 | 3 |
| 59 | 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 | 5.1 | 2 |
| 58 | 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 | 2.4 | 12 |

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| 57 | Forecast of the higher heating value in biomass torrefaction by means of machine learning techniques. <i>Journal of Computational and Applied Mathematics</i> , 2019 , 357, 284-301 | 2.4 | 26 |
| 56 | 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 | 3.9 | 6 |
| 55 | Water eutrophication assessment relied on various machine learning techniques: A case study in the Englishmen Lake (Northern Spain). <i>Ecological Modelling</i> , 2019 , 404, 91-102 | 3 | 22 |
| 54 | 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 | 3.3 | 5 |
| 53 | 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 | 4.8 | 20 |
| 52 | 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 | 3.2 | 2 |
| 51 | A comparison of several machine learning techniques for the centerline segregation prediction in continuous cast steel slabs and evaluation of its performance. <i>Journal of Computational and Applied Mathematics</i> , 2018 , 330, 877-895 | 2.4 | 28 |
| 50 | 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 | 14 |
| 49 | Pressure drop modelling in sand filters in micro-irrigation using gradient boosted regression trees. <i>Biosystems Engineering</i> , 2018 , 171, 41-51 | 4.8 | 16 |
| 48 | PM concentration forecasting in the metropolitan area of Oviedo (Northern Spain) using models based on SVM, MLP, VARMA and ARIMA: A case study. <i>Science of the Total Environment</i> , 2018 , 621, 753-761 | 10.2 | 91 |
| 47 | Predictive modelling of eutrophication in the Pozo de la Dolores lake (Northern Spain) by using an evolutionary support vector machines approach. <i>Journal of Mathematical Biology</i> , 2018 , 76, 817-840 | 2 | 5 |
| 46 | Detection of Outliers in Pollutant Emissions from the Soto de Ribera Coal-Fired Plant Using Functional Data Analysis: A Case Study in Northern Spain. <i>Proceedings (mdpi)</i> , 2018 , 2, 1473 | 0.3 | 1 |
| 45 | 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 | 5.1 | 6 |
| 44 | Estimation of PM10 concentration from air quality data in the vicinity of a major steelworks site in the metropolitan area of Avilés (Northern Spain) using machine learning techniques. <i>Stochastic Environmental Research and Risk Assessment</i> , 2018 , 32, 3287-3298 | 3.5 | 11 |
| 43 | 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 | 2.4 | 15 |
| 42 | 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 | 6.5 | 10 |
| 41 | Using evolutionary multivariate adaptive regression splines approach to evaluate the eutrophication in the Pozo de la Dolores lake (Northern Spain). <i>Ecological Engineering</i> , 2016 , 94, 136-151 | 3.9 | 10 |
| 40 | A hybrid PSO optimized SVM-based model for predicting a successful growth cycle of the <i>Spirulina platensis</i> from raceway experiments data. <i>Journal of Computational and Applied Mathematics</i> , 2016 , 291, 293-303 | 2.4 | 33 |

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| 39 | A New Predictive Model for the State-of-Charge of a High-Power Lithium-Ion Cell Based on a PSO-Optimized Multivariate Adaptive Regression Spline Approach. <i>IEEE Transactions on Vehicular Technology</i> , 2016 , 65, 4197-4208 | 6.8 | 14 |
| 38 | Hybrid ABC Optimized MARS-Based Modeling of the Milling Tool Wear from Milling Run Experimental Data. <i>Materials</i> , 2016 , 9, | 3.5 | 4 |
| 37 | 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 | 6 |
| 36 | Hard-Rock Stability Analysis for Span Design in Entry-Type Excavations with Learning Classifiers. <i>Materials</i> , 2016 , 9, | 3.5 | 13 |
| 35 | A new predictive model based on the PSO-optimized support vector machine approach for predicting the milling tool wear from milling runs experimental data. <i>International Journal of Advanced Manufacturing Technology</i> , 2016 , 86, 769-780 | 3.2 | 20 |
| 34 | A new predictive model for the filtered volume and outlet parameters in micro-irrigation sand filters fed with effluents using the hybrid PSO-BVM-based approach. <i>Computers and Electronics in Agriculture</i> , 2016 , 125, 74-80 | 6.5 | 13 |
| 33 | Hybrid PSO-BVM-based method for forecasting of the remaining useful life for aircraft engines and evaluation of its reliability. <i>Reliability Engineering and System Safety</i> , 2015 , 138, 219-231 | 6.3 | 159 |
| 32 | 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, 6642-59 | 5.1 | 9 |
| 31 | A hybrid PCA-CART-MARS-based prognostic approach of the remaining useful life for aircraft engines. <i>Sensors</i> , 2015 , 15, 7062-83 | 3.8 | 29 |
| 30 | A hybrid PSO optimized SVM-based method for predicting of the cyanotoxin content from experimental cyanobacteria concentrations in the Trasona reservoir: A case study in Northern Spain. <i>Applied Mathematics and Computation</i> , 2015 , 260, 170-187 | 2.7 | 17 |
| 29 | 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 | 3.9 | 10 |
| 28 | 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 | 4.2 | 2 |
| 27 | Using Apparent Density of Paper from Hardwood Kraft Pulps to Predict Sheet Properties, based on Unsupervised Classification and Multivariable Regression Techniques. <i>BioResources</i> , 2015 , 10, | 1.3 | 4 |
| 26 | Prediction of Five Softwood Paper Properties from its Density using Support Vector Machine Regression Techniques. <i>BioResources</i> , 2015 , 11, | 1.3 | 3 |
| 25 | Hybrid PSO-BVM-based method for long-term forecasting of turbidity in the Nalā river basin: A case study in Northern Spain. <i>Ecological Engineering</i> , 2014 , 73, 192-200 | 3.9 | 32 |
| 24 | Convergence and stochastic stability analysis of particle swarm optimization variants with generic parameter distributions. <i>Applied Mathematics and Computation</i> , 2014 , 249, 286-302 | 2.7 | 23 |
| 23 | Support Vector Machines Used to Estimate the Battery State of Charge. <i>IEEE Transactions on Power Electronics</i> , 2013 , 28, 5919-5926 | 7.2 | 214 |
| 22 | Battery State-of-Charge Estimator Using the MARS Technique. <i>IEEE Transactions on Power Electronics</i> , 2013 , 28, 3798-3805 | 7.2 | 62 |

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| 21 | Particle swarm optimisation: time for uniformisation. <i>International Journal of Computing Science and Mathematics</i> , 2013 , 4, 16 | 0.8 | 6 |
| 20 | Aligned PSO for Optimization of Image Processing Methods Applied to the Face Recognition Problem. <i>Lecture Notes in Computer Science</i> , 2013 , 642-651 | 0.9 | |
| 19 | Reservoir characterization and inversion uncertainty via a family of particle swarm optimizers. <i>Geophysics</i> , 2012 , 77, M1-M16 | 3.1 | 36 |
| 18 | How to design a powerful family of particle swarm optimizers for inverse modelling. <i>Transactions of the Institute of Measurement and Control</i> , 2012 , 34, 705-719 | 1.8 | 12 |
| 17 | STOCHASTIC STABILITY AND NUMERICAL ANALYSIS OF TWO NOVEL ALGORITHMS OF THE PSO FAMILY: PP-GPSO AND RR-GPSO. <i>International Journal on Artificial Intelligence Tools</i> , 2012 , 21, 1240011 | 0.9 | 23 |
| 16 | Uncertainty assessment for inverse problems in high dimensional spaces using particle swarm optimization and model reduction techniques. <i>Mathematical and Computer Modelling</i> , 2011 , 54, 2889-2899 | | 21 |
| 15 | Stochastic Stability Analysis of the Linear Continuous and Discrete PSO Models. <i>IEEE Transactions on Evolutionary Computation</i> , 2011 , 15, 405-423 | 15.6 | 90 |
| 14 | What Makes Particle Swarm Optimization a Very Interesting and Powerful Algorithm?. <i>Adaptation, Learning, and Optimization</i> , 2011 , 37-65 | 0.7 | 6 |
| 13 | Particle Swarm Optimization: A Powerful Family of Stochastic Optimizers. Analysis, Design and Application to Inverse Modelling. <i>Lecture Notes in Computer Science</i> , 2011 , 1-8 | 0.9 | 4 |
| 12 | Particle swarm optimization applied to solving and appraising the streaming-potential inverse problem. <i>Geophysics</i> , 2010 , 75, WA3-WA15 | 3.1 | 57 |
| 11 | PSO Advances and Application to Inverse Problems. <i>Lecture Notes in Computer Science</i> , 2010 , 147-154 | 0.9 | 1 |
| 10 | PSO: A powerful algorithm to solve geophysical inverse problems. <i>Journal of Applied Geophysics</i> , 2010 , 71, 13-25 | 1.7 | 129 |
| 9 | Particle Swarm Optimization in High Dimensional Spaces. <i>Lecture Notes in Computer Science</i> , 2010 , 496-503 | 0.9 | 4 |
| 8 | Particle Swarm Optimization and Inverse Problems. <i>Advances in Intelligent and Soft Computing</i> , 2010 , 289-296 | | |
| 7 | AMTCLAB: A MATLAB [®] -based program for travelttime analysis and velocity tuning in 2D elliptical anisotropic media. <i>Computers and Geosciences</i> , 2009 , 35, 2057-2064 | 4.5 | 2 |
| 6 | The PSO family: deduction, stochastic analysis and comparison. <i>Swarm Intelligence</i> , 2009 , 3, 245 | 3 | 70 |
| 5 | Estimation of water table from self-potential data using particle swarm optimization (PSO) 2008 , | | 9 |
| 4 | Particle Swarm Optimization (PSO): a simple and powerful algorithm family for geophysical inversion 2008 , | | 14 |

- 3 The Generalized PSO: A New Door to PSO Evolution. *Journal of Artificial Evolution and Applications*, **2008**, 2008, 1-15 49
- 2 Theoretical analysis of particle swarm trajectories through a mechanical analogy. *International Journal of Computational Intelligence Research*, **2008**, 4, 39
- 1 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*, 1 3-5