

Fernando Sanchez-Lasheras

List of Publications by Year in descending order

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Version: 2024-02-01

113
papers

2,677
citations

159585

30
h-index

197818

49
g-index

116
all docs

116
docs citations

116
times ranked

2637
citing authors

#	ARTICLE	IF	CITATIONS
1	Hybrid PSO-SVM-based method for forecasting of the remaining useful life for aircraft engines and evaluation of its reliability. Reliability Engineering and System Safety, 2015, 138, 219-231.	8.9	235
2	Battery state-of-charge estimator using the SVM technique. Applied Mathematical Modelling, 2013, 37, 6244-6253.	4.2	148
3	A hybrid ARIMA-SVM model for the study of the remaining useful life of aircraft engines. Journal of Computational and Applied Mathematics, 2019, 346, 184-191.	2.0	147
4	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
5	Bankruptcy forecasting: A hybrid approach using Fuzzy c-means clustering and Multivariate Adaptive Regression Splines (MARS). Expert Systems With Applications, 2011, 38, 1866-1875.	7.6	140
6	Forecasting the COMEX copper spot price by means of neural networks and ARIMA models. Resources Policy, 2015, 45, 37-43.	9.6	121
7	Battery State-of-Charge Estimator Using the MARS Technique. IEEE Transactions on Power Electronics, 2013, 28, 3798-3805.	7.9	74
8	Missing Data Imputation of Solar Radiation Data under Different Atmospheric Conditions. Sensors, 2014, 14, 20382-20399.	3.8	60
9	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
10	Prediction of work-related accidents according to working conditions using support vector machines. Applied Mathematics and Computation, 2011, 218, 3539-3552.	2.2	55
11	The use of design of experiments to improve a neural network model in order to predict the thickness of the chromium layer in a hard chromium plating process. Mathematical and Computer Modelling, 2010, 52, 1169-1176.	2.0	52
12	Artificial neural networks applied to cancer detection in a breast screening programme. Mathematical and Computer Modelling, 2010, 52, 983-991.	2.0	52
13	Missing data imputation of questionnaires by means of genetic algorithms with different fitness functions. Journal of Computational and Applied Mathematics, 2017, 311, 704-717.	2.0	52
14	A 25-year follow-up of patients admitted to methadone treatment for the first time: Mortality and gender differences. Addictive Behaviors, 2011, 36, 1184-1190.	3.0	51
15	A hybrid device for the solution of sampling bias problems in the forecasting of firms' bankruptcy. Expert Systems With Applications, 2012, 39, 7512-7523.	7.6	50
16	Open-loop tomography with artificial neural networks on CANARY: on-sky results. Monthly Notices of the Royal Astronomical Society, 2014, 441, 2508-2514.	4.4	50
17	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
18	Biomechanical Consequences of the Elastic Properties of Dental Implant Alloys on the Supporting Bone: Finite Element Analysis. BioMed Research International, 2016, 2016, 1-9.	1.9	41

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19	Modeling a MEMS deformable mirror using non-parametric estimation techniques. Optics Express, 2010, 18, 21356.	3.4	40
20	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
21	Deformable mirror model for open-loop adaptive optics using multivariate adaptive regression splines. Optics Express, 2010, 18, 6492.	3.4	36
22	Study of cyanotoxins presence from experimental cyanobacteria concentrations using a new data mining methodology based on multivariate adaptive regression splines in Trasona reservoir (Northern Spain). Environmental Modelling and Software, 2012, 37, 102-110.	0.2	10
23	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
24	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
25	Forecasting the cyanotoxins presence in fresh waters: A new model based on genetic algorithms combined with the MARS technique. Ecological Engineering, 2013, 53, 68-78.	3.6	36
26	A Hybrid PCA-CART-MARS-Based Prognostic Approach of the Remaining Useful Life for Aircraft Engines. Sensors, 2015, 15, 7062-7083.	3.8	36
27	Using multivariate adaptive regression splines and multilayer perceptron networks to evaluate paper manufactured using Eucalyptus globulus. Applied Mathematics and Computation, 2012, 219, 755-763.	2.2	35
28	An ANN-Based Smart Tomographic Reconstructor in a Dynamic Environment. Sensors, 2012, 12, 8895-8911.	3.8	33
29	Power Cell SOC Modelling for Intelligent Virtual Sensor Implementation. Journal of Sensors, 2017, 2017, 1-10.	1.1	32
30	Forecasting European thermal coal spot prices. Journal of Sustainable Mining, 2015, 14, 203-210.	0.2	31
31	Non-linear numerical analysis of a double-threaded titanium alloy dental implant by FEM. Applied Mathematics and Computation, 2008, 206, 952-967.	2.2	30
32	Survival model in oral squamous cell carcinoma based on clinicopathological parameters, molecular markers and support vector machines. Expert Systems With Applications, 2013, 40, 4770-4776.	7.6	30
33	Investment in new tungsten mining projects. Resources Policy, 2015, 46, 177-190.	9.6	29
34	Experience with wavefront sensor and deformable mirror interfaces for wide-field adaptive optics systems. Monthly Notices of the Royal Astronomical Society, 2016, 459, 1350-1359.	4.4	29
35	A New Missing Data Imputation Algorithm Applied to Electrical Data Loggers. Sensors, 2015, 15, 31069-31082.	3.8	26
36	Effect of Different Implant Designs on Strain and Stress Distribution under Non-Axial Loading: A Three-Dimensional Finite Element Analysis. International Journal of Environmental Research and Public Health, 2020, 17, 4738.	2.6	24

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37	Identification of gender differences in the factors influencing shoulders, neck and upper limb MSD by means of multivariate adaptive regression splines (MARS). <i>Applied Ergonomics</i> , 2020, 82, 102981.	3.1	23
38	Forecasting SO ₂ Pollution Incidents by means of Elman Artificial Neural Networks and ARIMA Models. <i>Abstract and Applied Analysis</i> , 2013, 2013, 1-6.	0.7	22
39	Rare earth elements price forecasting by means of transgenic time series developed with ARIMA models. <i>Resources Policy</i> , 2018, 59, 95-102.	9.6	22
40	Prediction of Computer Vision Syndrome in Health Personnel by Means of Genetic Algorithms and Binary Regression Trees. <i>Sensors</i> , 2019, 19, 2800.	3.8	21
41	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
42	A jaw model for the study of the mandibular flexure taking into account the anisotropy of the bone. <i>Mathematical and Computer Modelling</i> , 2009, 50, 695-704.	2.0	18
43	Application of neural networks to the study of the influence of diet and lifestyle on the value of bone mineral density in post-menopausal women. <i>Mathematical and Computer Modelling</i> , 2011, 54, 1665-1670.	2.0	17
44	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
45	Evolutionary support vector regression algorithm applied to the prediction of the thickness of the chromium layer in a hard chromium plating process. <i>Applied Mathematics and Computation</i> , 2014, 227, 164-170.	2.2	16
46	Comparative Study of Imputation Algorithms Applied to the Prediction of Student Performance. <i>Logic Journal of the IGPL</i> , 2020, 28, 58-70.	1.5	16
47	Effects of the economic crisis on demand due to mental disorders in Asturias: data from the Asturias Cumulative Psychiatric Case Register (2000-2010). <i>Actas Espanolas De Psiquiatria</i> , 2014, 42, 108-15.	0.1	16
48	A nomogram for predicting complications in patients with solid tumours and seemingly stable febrile neutropenia. <i>British Journal of Cancer</i> , 2016, 114, 1191-1198.	6.4	14
49	Stress distribution in the transitional peri-implant bone in a single implant-supported prosthesis with platform-switching under different angulated loads. <i>Odontology / the Society of the Nippon Dental University</i> , 2017, 105, 68-75.	1.9	13
50	Suicide, unemployment, and economic recession in Spain. <i>Revista De PsiquiatrÃa Y Salud Mental (English Edition)</i> , 2017, 10, 70-77.	0.3	13
51	Computer vision syndrome in healthcare workers using video display terminals: an exploration of the risk factors. <i>Journal of Advanced Nursing</i> , 2022, 78, 2095-2110.	3.3	13
52	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
53	Multiscale Supervised Classification of Point Clouds with Urban and Forest Applications. <i>Sensors</i> , 2019, 19, 4523.	3.8	11
54	Genetic algorithm based on support vector machines for computer vision syndrome classification in health personnel. <i>Neural Computing and Applications</i> , 2020, 32, 1239-1248.	5.6	11

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55	Evolution and forecasting of PM10 concentration at the Port of Gijon (Spain). Scientific Reports, 2020, 10, 11716.	3.3	11
56	First on-sky results of a neural network based tomographic reconstructor: Carmen on Canary. Proceedings of SPIE, 2014, , .	0.8	10
57	Feasibility Evaluation of Photogrammetry versus Coordinate Measuring Arms for the Assembly of Welded Structures. Advanced Materials Research, 0, 498, 103-108.	0.3	9
58	Prognostic value of computed tomography pulmonary angiography indices in patients with cancer-related pulmonary embolism: Data from a multicenter cohort study. European Journal of Radiology, 2017, 87, 66-75.	2.6	9
59	Endocrinología y nutrición: evolución de la elección de la especialidad en los últimos años. Endocrinología, Diabetes Y Nutrición, 2017, 64, 329-331.	0.3	9
60	Comparison of GPS observations made in a forestry setting using functional data analysis. International Journal of Computer Mathematics, 2012, 89, 402-408.	1.8	8
61	Evolución de la prevalencia administrativa de los trastornos mentales durante 13 años en Asturias (norte de España). Revista De Psiquiatría Y Salud Mental, 2013, 6, 60-66.	1.8	8
62	A Statistical Approach To Prediction Of The CMM Drift Behaviour Using A Calibrated Mechanical Artefact. Metrology and Measurement Systems, 2015, 22, 417-428.	1.4	8
63	Análisis de la elección de la especialidad de radiodiagnóstico en el examen MIR desde el año 2006 hasta 2015. Radiología, 2017, 59, 232-246.	0.5	7
64	A Parametric Model of the LARCODEMS Heavy Media Separator by Means of Multivariate Adaptive Regression Splines. Materials, 2017, 10, 729.	2.9	7
65	Analysis of Biomass Blend Co-Firing for Post Combustion CO2 Capture. Sustainability, 2018, 10, 923.	3.2	7
66	GASVeM: A New Machine Learning Methodology for Multi-SNP Analysis of GWAS Data Based on Genetic Algorithms and Support Vector Machines. Mathematics, 2021, 9, 654.	2.2	7
67	Analysing the Performance of a Tomographic Reconstructor with Different Neural Networks Frameworks. Advances in Intelligent Systems and Computing, 2017, , 1051-1060.	0.6	7
68	Gastroenterology - Evolution of specialty choice in recent years. Revista Espanola De Enfermedades Digestivas, 2017, 109, 614-618.	0.3	7
69	Assessing the breathing resistance of filtering-facepiece respirators in Polish coal mines: A survey and laboratory study. International Journal of Industrial Ergonomics, 2018, 68, 101-109.	2.6	6
70	Convolutional Neural Networks Approach for Solar Reconstruction in SCAO Configurations. Sensors, 2019, 19, 2233.	3.8	6
71	Does the transversal screw design increase the risk of mechanical complications in dental implants? A finite elements analysis. International Journal for Numerical Methods in Biomedical Engineering, 2019, 35, e3205.	2.1	6
72	Predicting Benzene Concentration Using Machine Learning and Time Series Algorithms. Mathematics, 2020, 8, 2205.	2.2	6

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73	Real-time tomographic reconstructor based on convolutional neural networks for solar observation. <i>Mathematical Methods in the Applied Sciences</i> , 2020, 43, 8032-8041.	2.3	6
74	Experimental evidence of pharmacological management of anchorage in Orthodontics: A systematic review. <i>Dental Press Journal of Orthodontics</i> , 2015, 20, 58-65.	0.9	4
75	A Hybrid Algorithm for Missing Data Imputation and Its Application to Electrical Data Loggers. <i>Sensors</i> , 2016, 16, 1467.	3.8	4
76	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
77	Prediction of Health-Related Leave Days among Workers in the Energy Sector by Means of Genetic Algorithms. <i>Energies</i> , 2020, 13, 2475.	3.1	4
78	Zirconia vs. Titanium Dental Implants: Primary Stability In-Vitro Analysis. <i>Materials</i> , 2021, 14, 7886.	2.9	4
79	Bankruptcy Prediction and Credit Scoring: A Review of Recent Developments Based on Hybrid Systems and Some Related Patents. <i>Recent Patents on Computer Science</i> , 2012, 5, 11-20.	0.5	3
80	Changes in administrative prevalence of mental disorders over a 13-year period in Asturias (northern) Tj ETQq0 0 0 rBT /Overlock 10 Tf	0.3	3
81	The MIR 2018 Exam: Psychometric Study and Comparison with the Previous Nine Years. <i>Medicina (Lithuania)</i> , 2019, 55, 751.	2.0	3
82	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
83	Hybrid algorithm for the classification of prostate cancer patients of the MCC-Spain study based on support vector machines and genetic algorithms. <i>Neurocomputing</i> , 2021, 452, 386-394.	5.9	3
84	Study of posterolateral lumbar arthrodesis by means of a finite element model. <i>Mathematical and Computer Modelling</i> , 2009, 50, 680-694.	2.0	2
85	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
86	Genetic Algorithm Based on Support Vector Machines for Computer Vision Syndrome Classification. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 381-390.	0.6	2
87	A Hybrid Algorithm for the Assessment of the Influence of Risk Factors in the Development of Upper Limb Musculoskeletal Disorders. <i>Lecture Notes in Computer Science</i> , 2018, , 634-646.	1.3	2
88	An Intervention Based on Identifying Topics That Students Have Difficulties with. <i>Mathematics</i> , 2020, 8, 2220.	2.2	2
89	Overview and Choice of Artificial Intelligence Approaches for Night-Time Adaptive Optics Reconstruction. <i>Mathematics</i> , 2021, 9, 1220.	2.2	2
90	Bankruptcy Prediction and Credit Scoring: A Review of Recent Developments Based on Hybrid Systems and Some Related Patents. <i>Recent Patents on Computer Science</i> , 2012, 5, 11-20.	0.5	2

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91	Identification of frequent touristic routes using the SMoT algorithm. , 2013, , .		1
92	Endocrinology and nutrition: Evolution of the choice of specialty in the last years. Endocrinología y Nutrición (English Ed), 2017, 64, 329-331.	0.2	1
93	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
94	Classification of Prostate Cancer Patients and Healthy Individuals by Means of a Hybrid Algorithm Combining SVM and Evolutionary Algorithms. Lecture Notes in Computer Science, 2018, , 547-557.	1.3	1
95	Coordination between High School and University Teachers in Spain to Reduce Mistakes in Calculus. Mathematics, 2019, 7, 817.	2.2	1
96	A Multiregressive Approach for SNPs Identification in Prostate Cancer. Advances in Intelligent Systems and Computing, 2018, , 400-409.	0.6	1
97	Convolutional CARMEN: Tomographic Reconstruction for Night Observation. Lecture Notes in Computer Science, 2019, , 335-345.	1.3	1
98	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
99	Predicting the Future-Big Data and Machine Learning. Energies, 2021, 14, 8041.	3.1	1
100	A New Algorithm for Multivariate Genome Wide Association Studies Based on Differential Evolution and Extreme Learning Machines. Mathematics, 2022, 10, 1024.	2.2	1
101	Advantages and Disadvantages of Double Threaded Dental Implant Screws As Opposed to Single-Threaded: A Study from a Biomechanical Perspective by the Finite Element Method. , 2009, , .		0
102	Deformable mirror models for open-loop adaptive optics using non-parametric estimation techniques. , 2010, , .		0
103	A Wiki Collaborative Application for Teaching in Manufacturing Engineering. Materials Science Forum, 2013, 759, 11-17.	0.3	0
104	Student Performance Prediction Applying Missing Data Imputation in Electrical Engineering Studies Degree. Lecture Notes in Computer Science, 2016, , 126-135.	1.3	0
105	Advances in Complex Systems and Their Applications to Cybersecurity. Complexity, 2019, 2019, 1-2.	1.6	0
106	A problem-based learning proposal to teach numerical and analytical nonlinear root searching methods. International Journal of Mathematical Education in Science and Technology, 0, , 1-14.	1.4	0
107	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
108	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

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109	A Hybrid Algorithm for the Prediction of Computer Vision Syndrome in Health Personnel Based on Trees and Evolutionary Algorithms. Lecture Notes in Computer Science, 2018, , 597-608.	1.3	0
110	Evolutionary Algorithm for Pathways Detection in GWAS Studies. Lecture Notes in Computer Science, 2019, , 111-122.	1.3	0
111	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
112	MACHINE LEARNING METHODOLOGIES IN THE FRAMEWORK OF A DOCTORAL THESIS IN THE FIELD OF GENOME-WIDE ASSOCIATION STUDIES. , 2021, , .		0
113	MATHEMATICAL DIFFICULTIES OF FIRST YEAR UNIVERSITY STUDENTS. , 2021, , .		0