

Irma ChacÃ³n

List of Publications by Year in descending order

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Version: 2024-02-01

90
papers

2,596
citations

159585

30
h-index

206112

48
g-index

96
all docs

96
docs citations

96
times ranked

2377
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	Prediction of work-related accidents according to working conditions using support vector machines. Applied Mathematics and Computation, 2011, 218, 3539-3552.	2.2	55
10	Artificial neural networks applied to cancer detection in a breast screening programme. Mathematical and Computer Modelling, 2010, 52, 983-991.	2.0	52
11	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
12	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
13	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
14	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
15	Using artificial neural networks for open-loop tomography. Optics Express, 2012, 20, 2420.	3.4	44
16	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
17	Applying the K-nearest neighbor technique to the classification of workers according to their risk of suffering musculoskeletal disorders. International Journal of Industrial Ergonomics, 2016, 52, 92-99.	2.6	42
18	Modeling a MEMS deformable mirror using non-parametric estimation techniques. Optics Express, 2010, 18, 21356.	3.4	40

#	ARTICLE	IF	CITATIONS
19	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
20	Deformable mirror model for open-loop adaptive optics using multivariate adaptive regression splines. Optics Express, 2010, 18, 6492.	3.4	36
21	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). Tj ETQq1 1 0.284314 mgBT /Ov...	1.1	31
22	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
23	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
24	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
25	A Hybrid PCA-CART-MARS-Based Prognostic Approach of the Remaining Useful Life for Aircraft Engines. Sensors, 2015, 15, 7062-7083.	3.8	36
26	Modelling the hypnotic patient response in general anaesthesia using intelligent models. Logic Journal of the IGPL, 2019, 27, 189-201.	1.5	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	Hybrid Intelligent System to Perform Fault Detection on BIS Sensor During Surgeries. Sensors, 2017, 17, 179.	3.8	32
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	Dynamic Modeling of the Solar Field in Parabolic Trough Solar Power Plants. Energies, 2015, 8, 13361-13377.	3.1	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	Rapid cost estimation of metallic components for the aerospace industry. International Journal of Production Economics, 2008, 112, 470-482.	8.9	28
36	Machine learning techniques applied to the determination of osteoporosis incidence in post-menopausal women. Mathematical and Computer Modelling, 2009, 50, 673-679.	2.0	26

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37	A New Missing Data Imputation Algorithm Applied to Electrical Data Loggers. <i>Sensors</i> , 2015, 15, 31069-31082.	3.8	26
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	Missing data imputation over academic records of electrical engineering students. <i>Logic Journal of the IGPL</i> , 2020, 28, 487-501.	1.5	20
40	Analysis of the Temporal Structure Evolution of Physical Systems with the Self-Organising Tree Algorithm (SOTA): Application for Validating Neural Network Systems on Adaptive Optics Data before On-Sky Implementation. <i>Entropy</i> , 2017, 19, 103.	2.2	18
41	Evaluation of ground calcite/water heavy media cyclone suspensions for production of residual plastic concentrates. <i>Waste Management</i> , 2018, 71, 42-51.	7.4	18
42	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
43	Comparative Study of Neural Network Frameworks for the Next Generation of Adaptive Optics Systems. <i>Sensors</i> , 2017, 17, 1263.	3.8	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	Experience with Artificial Neural Networks Applied in Multi-object Adaptive Optics. <i>Publications of the Astronomical Society of the Pacific</i> , 2019, 131, 108012.	3.1	16
47	Successful sulfur recovery in low sulfurate compounds obtained from the zinc industry: Evaporationâ€“condensation method. <i>Journal of Hazardous Materials</i> , 2017, 336, 168-173.	12.4	16
48	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
49	Wavefront prediction using artificial neural networks for open-loop adaptive optics. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 496, 456-464.	4.4	15
50	Hybrid Intelligent Model to Predict the Remifentanil Infusion Rate in Patients Under General Anesthesia. <i>Logic Journal of the IGPL</i> , 2021, 29, 193-206.	1.5	15
51	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
52	Attempts Prediction by Missing Data Imputation in Engineering Degree. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 167-176.	0.6	12
53	An Intelligent Model to Predict ANI in Patients Undergoing General Anesthesia. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 492-501.	0.6	12
54	Predictors of Posttreatment Drinking Outcomes in Patients with Alcohol Dependence. <i>European Addiction Research</i> , 2015, 21, 19-30.	2.4	11

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55	Osteoprotegerin and zoledronate bone effects during orthodontic tooth movement. <i>Orthodontics and Craniofacial Research</i> , 2016, 19, 54-64.	2.8	11
56	Multi-GPU Development of a Neural Networks Based Reconstructor for Adaptive Optics. <i>Complexity</i> , 2018, 2018, 1-9.	1.6	11
57	Evolution and forecasting of PM10 concentration at the Port of Gijon (Spain). <i>Scientific Reports</i> , 2020, 10, 11716.	3.3	11
58	First on-sky results of a neural network based tomographic reconstructor: Carmen on Canary. <i>Proceedings of SPIE</i> , 2014, , .	0.8	10
59	Planetary candidates transiting cool dwarf stars from campaigns 12 to 15 of K2. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 499, 5416-5441.	4.4	10
60	Comparison of GPS observations made in a forestry setting using functional data analysis. <i>International Journal of Computer Mathematics</i> , 2012, 89, 402-408.	1.8	8
61	A Parametric Model of the LARCODEMS Heavy Media Separator by Means of Multivariate Adaptive Regression Splines. <i>Materials</i> , 2017, 10, 729.	2.9	7
62	The comminution energy-size reduction of the Bond Mill and its relation to Vickers Hardness. <i>Minerals Engineering</i> , 2018, 119, 228-235.	4.3	7
63	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
64	Analysing the Performance of a Tomographic Reconstructor with Different Neural Networks Frameworks. <i>Advances in Intelligent Systems and Computing</i> , 2017, , 1051-1060.	0.6	7
65	Radon Mitigation Approach in a Laboratory Measurement Room. <i>Sensors</i> , 2017, 17, 1090.	3.8	6
66	Comparative Modeling of a Parabolic Trough Collectors Solar Power Plant with MARS Models. <i>Energies</i> , 2018, 11, 37.	3.1	6
67	Rapid tomographic reconstruction through GPU-based adaptive optics. <i>Logic Journal of the IGPL</i> , 2019, 27, 214-226.	1.5	6
68	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
69	Effective extraction of high purity sulfur from industrial residue with low sulfur content. <i>Journal of Materials Research and Technology</i> , 2020, 9, 8117-8124.	5.8	6
70	A Machine Learning Based System for Analgesic Drug Delivery. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 461-470.	0.6	6
71	A Hybrid Algorithm for Missing Data Imputation and Its Application to Electrical Data Loggers. <i>Sensors</i> , 2016, 16, 1467.	3.8	4
72	An artificial neural network model for the prediction of bruxism by means of occlusal variables. <i>Neural Computing and Applications</i> , 2020, 32, 1259-1267.	5.6	4

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73	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
74	Comparative study of Shack-Hartmann configurations for atmospheric turbulence reconstructions in solar adaptive optics. <i>Optics and Lasers in Engineering</i> , 2022, 158, 107157.	3.8	3
75	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
76	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
77	Remifentanyl Dose Prediction for Patients During General Anesthesia. <i>Lecture Notes in Computer Science</i> , 2018, , 537-546.	1.3	2
78	Determining vine leaf water stress by functional data analysis. <i>International Journal of Computer Mathematics</i> , 2011, 88, 1941-1948.	1.8	1
79	Tomographic reconstructor for multi-object adaptive optics using artificial neural networks. <i>Proceedings of SPIE</i> , 2012, , .	0.8	1
80	Classification of Prostate Cancer Patients and Healthy Individuals by Means of a Hybrid Algorithm Combining SVM and Evolutionary Algorithms. <i>Lecture Notes in Computer Science</i> , 2018, , 547-557.	1.3	1
81	USING MYERS-BRIGGS TYPE INDICATOR (MBTI) FOR ASSESSMENT SUCCESS OF STUDENT GROUPS IN PROJECT BASED LEARNING. , 2010, , .		1
82	Convolutional CARMEN: Tomographic Reconstruction for Night Observation. <i>Lecture Notes in Computer Science</i> , 2019, , 335-345.	1.3	1
83	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
84	Deformable mirror models for open-loop adaptive optics using non-parametric estimation techniques. , 2010, , .		0
85	Student Performance Prediction Applying Missing Data Imputation in Electrical Engineering Studies Degree. <i>Lecture Notes in Computer Science</i> , 2016, , 126-135.	1.3	0
86	SOLVENCY ASSESSMENT IN AN UNBALANCED SAMPLE. , 2011, , .		0
87	An Intelligent Model for Bispectral Index (BIS) in Patients Undergoing General Anesthesia. <i>Advances in Intelligent Systems and Computing</i> , 2017, , 290-300.	0.6	0
88	An Artificial Neural Network Model for the Prediction of Bruxism by Means of Occlusal Variables. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 371-380.	0.6	0
89	Evolutionary Algorithm for Pathways Detection in GWAS Studies. <i>Lecture Notes in Computer Science</i> , 2019, , 111-122.	1.3	0
90	Early Fully-Convolutional Approach to Wavefront Imaging on Solar Adaptive Optics Simulations. <i>Lecture Notes in Computer Science</i> , 2020, , 674-685.	1.3	0