

Roberto Fernandez Martinez

List of Publications by Year in descending order

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49
papers

499
citations

686830

13
h-index

713013

21
g-index

53
all docs

53
docs citations

53
times ranked

405
citing authors

#	ARTICLE	IF	CITATIONS
1	Combining soft computing techniques and the finite element method to design and optimize complex welded products. <i>Integrated Computer-Aided Engineering</i> , 2015, 22, 153-170.	2.5	49
2	Optimization of operating conditions for a double-row tapered roller bearing. <i>International Journal of Mechanics and Materials in Design</i> , 2016, 12, 353-373.	1.7	46
3	Using Genetic Algorithms with Multi-Objective Optimization to Adjust Finite Element Models of Welded Joints. <i>Metals</i> , 2018, 8, 230.	1.0	42
4	Determination of the contact stresses in double-row tapered roller bearings using the finite element method, experimental analysis and analytical models. <i>Journal of Mechanical Science and Technology</i> , 2015, 29, 4645-4656.	0.7	38
5	Use of decision tree models based on evolutionary algorithms for the morphological classification of reinforcing nano-particle aggregates. <i>Computational Materials Science</i> , 2014, 92, 102-113.	1.4	34
6	Decision support model for one-way floor slab design: A sustainable approach. <i>Automation in Construction</i> , 2013, 35, 460-470.	4.8	25
7	Using the finite element method and data mining techniques as an alternative method to determine the maximum load capacity in tapered roller bearings. <i>Journal of Applied Logic</i> , 2017, 24, 4-14.	1.1	24
8	Optimizing Biodiesel Production from Waste Cooking Oil Using Genetic Algorithm-Based Support Vector Machines. <i>Energies</i> , 2018, 11, 2995.	1.6	24
9	Optimizing presetting attributes by softcomputing techniques to improve tapered roller bearings working conditions. <i>Advances in Engineering Software</i> , 2018, 123, 13-24.	1.8	23
10	Using Genetic Algorithms to Optimize the Material Behaviour Model in Finite Element Models of Processes with Cyclic Loads. <i>Journal of Strain Analysis for Engineering Design</i> , 2011, 46, 143-159.	1.0	20
11	Methodology to classify the shape of reinforcement fillers: optimization, evaluation, comparison, and selection of models. <i>Journal of Materials Science</i> , 2017, 52, 569-580.	1.7	18
12	Comparative analysis of learning and meta-learning algorithms for creating models for predicting the probable alcohol level during the ripening of grape berries. <i>Computers and Electronics in Agriculture</i> , 2012, 80, 54-62.	3.7	15
13	Methodology based on genetic optimisation to develop overall parsimony models for predicting temperature settings on annealing furnace. <i>Ironmaking and Steelmaking</i> , 2014, 41, 87-98.	1.1	14
14	Characterization of electrolytic tinplate materials via combined finite element and regression models. <i>Journal of Strain Analysis for Engineering Design</i> , 2014, 49, 467-480.	1.0	13
15	Design and optimization of an electromagnetic servo braking system combining finite element analysis and weight-based multi-objective genetic algorithms. <i>Journal of Mechanical Science and Technology</i> , 2016, 30, 3591-3605.	0.7	13
16	Influence of Cryogenic Treatment on Wear Resistance and Microstructure of AISI A8 Tool Steel. <i>Metals</i> , 2018, 8, 1038.	1.0	13
17	Semi-automated quantification of the microstructure of PLA/clay nanocomposites to improve the prediction of the elastic modulus. <i>Polymer Testing</i> , 2018, 66, 280-291.	2.3	11
18	Use of support vector machines, neural networks and genetic algorithms to characterize rubber blends by means of the classification of the carbon black particles used as reinforcing agent. <i>Soft Computing</i> , 2019, 23, 6115-6124.	2.1	11

#	ARTICLE	IF	CITATIONS
19	Optimising tension levelling process by means of genetic algorithms and finite element method. Ironmaking and Steelmaking, 2011, 38, 45-52.	1.1	9
20	Pin on disk against ball on disk for the evaluation of wear improvement on cryo-treated metal cutting shears. AIP Conference Proceedings, 2015, , .	0.3	8
21	Combining genetic algorithms and the finite element method to improve steel industrial processes. Journal of Applied Logic, 2012, 10, 298-308.	1.1	7
22	Overhead Line Ampacity Forecasting With a Focus on Safety. IEEE Transactions on Power Delivery, 2022, 37, 329-337.	2.9	6
23	Overall model of the dynamic behaviour of the steel strip in an annealing heating furnace on a hot-dip galvanizing line. Revista De Metalurgia, 2010, 46, 405-420.	0.1	6
24	Improvement in Manufacturing Welded Products through Multiple Response Surface Methodology and Data Mining Techniques. Advances in Intelligent Systems and Computing, 2014, , 301-310.	0.5	5
25	Modeling of the Mechanical Properties of Carbon-Black Reinforced Rubber Blends by Machine Learning Techniques. Applied Mechanics and Materials, 0, 627, 97-100.	0.2	3
26	Combination of the Finite Element Method and Data Mining Techniques to Design and Optimize Bearings. Advances in Intelligent Systems and Computing, 2014, , 165-174.	0.5	3
27	Adjust the Thermo-Mechanical Properties of Finite Element Models Welded Joints Based on Soft Computing Techniques. Lecture Notes in Computer Science, 2017, , 699-709.	1.0	3
28	3D TEM reconstruction and segmentation process of laminar bio-nanocomposites. AIP Conference Proceedings, 2015, , .	0.3	2
29	Mechanical Behavior of PLA/Clay Reinforced Nanocomposite Material Using FE Simulations: Comparison of an Idealized Volume against the Real Electron Tomography Volume. Advanced Materials Research, 0, 1139, 20-24.	0.3	1
30	Use of classification trees and rule-based models to optimize the funding assignment to research projects: A case study of UTPL. Journal of Informetrics, 2021, 15, 101107.	1.4	1
31	Novel creep steel developed through innovative composition and thermal treatment. Materials at High Temperatures, 0, , 1-9.	0.5	1
32	Carbide distribution based on automatic image analysis for cryogenically treated tool steels. Materiali in Tehnologije, 2017, 51, 609-611.	0.3	1
33	Combining the Finite Element Method and Response Surface Methodology for Adjustment of Contact Stress Ratios in Tapered Roller Bearings. Mechanisms and Machine Science, 2015, , 957-964.	0.3	1
34	Improvement in the Process of Designing a New Artificial Human Intervertebral Lumbar Disc Combining Soft Computing Techniques and the Finite Element Method. Advances in Intelligent Systems and Computing, 2017, , 223-232.	0.5	1
35	Material Fracture Life Prediction Using Linear Regression Techniques Under High Temperature Creep Conditions. Lecture Notes in Computer Science, 2019, , 535-544.	1.0	1
36	Theoretical Model for Calculating the Rotation in Cementless Acetabular Cup Prosthesis Implanted by Press Fit into a Hip of Canines. Applied Mechanics and Materials, 0, 627, 101-104.	0.2	0

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37	Study of Different Biomaterials for Artificial Lumbar Disc Prosthesis Using FEM. Applied Mechanics and Materials, 0, 799-800, 483-487.	0.2	0
38	Use of Classification Trees and Rule-Based Methods to Predict Shapes of Nano-Aggregates of Reinforcement Fillers. Applied Mechanics and Materials, 0, 799-800, 130-134.	0.2	0
39	Design of an Electromagnetic Servo Brake with ABS Function. Applied Mechanics and Materials, 0, 799-800, 1172-1176.	0.2	0
40	Design of a Device to Eliminate Isocyanuric Acid from Water. Applied Mechanics and Materials, 0, 799-800, 952-956.	0.2	0
41	A Soft Computing Approach to Optimize the Clarification Process in Wastewater Treatment. Lecture Notes in Computer Science, 2016, , 609-620.	1.0	0
42	Tensile strength prediction of rubber blends using linear regression techniques. , 2017, , .		0
43	Multivariate Analysis of Composition Features to Perform Linear Predictions of Rubber Blends Tensile Strength. Applied Mechanics and Materials, 0, 872, 77-82.	0.2	0
44	Fatigue behavior prediction by Finite-Element-trained Data Mining models. , 2018, , .		0
45	Morphological classification of reinforcing nanoparticle aggregates: comparison between visual expert decision and machine learning techniques. , 2018, , .		0
46	Modeling Structural Elements Subjected to Buckling Using Data Mining and the Finite Element Method. Advances in Intelligent Systems and Computing, 2014, , 269-278.	0.5	0
47	Comparison Analysis of Regression Models Based on Experimental and FEM Simulation Datasets Used to Characterize Electrolytic Tinplate Materials. Advances in Intelligent Systems and Computing, 2014, , 279-288.	0.5	0
48	Finite Element Method application to solve biomechanical problems. Simulating the non-linear behavior of biomechanical problems. , 2017, , .		0
49	FEM study on vertebrae and ligaments human spine. Influence of the age, height and weight. , 2017, , .		0