Julian Sierra

List of Publications by Year
in descending order

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29 papers	623 citations	759233 12 h-index	580821 25 g-index
31 all docs	31 docs citations	31 times ranked	654 citing authors

#	Article	IF	Citations
1	Structural Health Monitoring for Advanced Composite Structures: A Review. Journal of Composites Science, 2020, 4, 13.	3.0	128
2	Damage and nonlinearities detection in wind turbine blades based on strain field pattern recognition. FBGs, OBR and strain gauges comparison. Composite Structures, 2016, 135, 156-166.	5.8	103
3	Structural Health Monitoring in Composite Structures by Fiber-Optic Sensors. Sensors, 2018, 18, 1094.	3.8	99
4	In-flight and wireless damage detection in a UAV composite wing using fiber optic sensors and strain field pattern recognition. Mechanical Systems and Signal Processing, 2020, 136, 106526.	8.0	66
5	Damage detection by using FBGs and strain field pattern recognition techniques. Smart Materials and Structures, 2013, 22, 025011.	3.5	25
6	Hybrid Energy Systems Sizing for the Colombian Context: A Genetic Algorithm and Particle Swarm Optimization Approach. Energies, 2020, 13, 5648.	3.1	22
7	Damage detection methodology under variable load conditions based on strain field pattern recognition using FBGs, nonlinear principal component analysis, and clustering techniques. Smart Materials and Structures, 2018, 27, 015002.	3.5	20
8	Toward Structural Health Monitoring of Civil Structures Based on Self-Sensing Concrete Nanocomposites: A Validation in a Reinforced-Concrete Beam. International Journal of Concrete Structures and Materials, 2021, 15, .	3.2	18
9	Structural design and manufacturing process of a low scale bio-inspired wind turbine blades. Composite Structures, 2019, 208, 1-12.	5.8	17
10	An unsupervised pattern recognition methodology based on factor analysis and a genetic-DBSCAN algorithm to infer operational conditions from strain measurements in structural applications. Chinese Journal of Aeronautics, 2021, 34, 165-181.	5.3	16
11	Damage detection in composite materials structures under variable loads conditions by using fiber Bragg gratings and principal component analysis, involving new unfolding and scaling methods. Journal of Intelligent Material Systems and Structures, 2015, 26, 1346-1359.	2.5	15
12	Design Method of Dual Active Bridge Converters for Photovoltaic Systems with High Voltage Gain. Energies, 2020, 13, 1711.	3.1	15
13	Multiway principal component analysis contributions for structural damage localization. Structural Health Monitoring, 2018, 17, 1151-1165.	7.5	13
14	An optimal baseline selection methodology for data-driven damage detection and temperature compensation in acousto-ultrasonics. Smart Materials and Structures, 2016, 25, 055034.	3.5	10
15	Technological and Operational Aspects That Limit Small Wind Turbines Performance. Energies, 2020, 13, 6123.	3.1	8
16	Toward a Structural Health Monitoring Methodology for Concrete Structures under Dynamic Loads Using Embedded FBG Sensors and Strain Mapping Techniques. Sensors, 2022, 22, 4569.	3.8	8
17	Structural Health Monitoring by Means of Strain Field Pattern Recognition on the basis of PCA and Automatic Clustering Techniques Based on SOM**The research included in this document was partially supported by the "Ministerio de Ciencia e InnovaciÃ³n" in Spain through the coordinated projects DPI2011-28033-C03-02 and DPI2011-28033-C03-03; and by the European Commission through the project SARISTU. IFAC-PapersOnLine, 2015, 48, 987-992.	0.9	7
18	Fiber Optics Sensors. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2013, , 265-316.	0.6	6

#	Article	IF	Citations
19	Signal-based nonlinear modelling for damage assessment under variable temperature conditions by means of acousto-ultrasonics. Structural Control and Health Monitoring, 2015, 22, 1103-1118.	4.0	6
20	Structural design of carbon/epoxy bio-inspired wind turbine blade using fluid/structure simulation. International Journal of Energy Research, 2016, 40, 1832-1845.	4.5	6
21	Structural health monitoring on an unmanned aerial vehicle wing's beam based on fiber Bragg gratings and pattern recognition techniques. Procedia Structural Integrity, 2017, 5, 729-736.	0.8	4
22	Formulation and simulation of a hybrid solar PV-wind generation system with photovoltaic concentration for non-interconnected areas to the energy grid. E3S Web of Conferences, 2020, 181, 02002.	0.5	3
23	Damage detection in aerostructures from strain measurements. Aircraft Engineering and Aerospace Technology, 2016, 88, 441-451.	0.8	2
24	Analytical determination of viscous permeability of hybrid fibrous reinforcements. International Journal of Thermofluids, 2020, 7-8, 100042.	7.8	2
25	Performance Analysis and Architecture of a Clustering Hybrid Algorithm Called FA+GA-DBSCAN Using Artificial Datasets. Entropy, 2022, 24, 875.	2.2	2
26	Susceptibility on the Strain Field Change as Function of the Coupling Between the Effect Produced by Damage Appearance and the Change in the Load Conditions. , 0, , .		1
27	Methodologies for the Damage Detection Based on Fiber-Optic Sensors. Applications to the Fuselage Panel and Lower Wing Panel. , 2016, , 407-431.		1
28	Structural health monitoring using carbon nanotube/epoxy composites and strain-field pattern recognition. AIP Conference Proceedings, 2018, , .	0.4	0
29	Development of a Remote Acquisition and Transmission System of Strain Measurements in an Unmanned Aerial Vehicle for Damage Detection. , 0, , .		0