Viviana Meruane

List of Publications by Year
in descending order

49 papers	1,474 citations	361296 20 h-index	330025 37 g-index
49 all docs	49 docs citations	49 times ranked	1441 citing authors

#	Article	IF	Citations
1	Deep Learning Enabled Fault Diagnosis Using Time-Frequency Image Analysis of Rolling Element Bearings. Shock and Vibration, 2017, 2017, 1-17.	0.3	228
2	An hybrid real genetic algorithm to detect structural damage using modal properties. Mechanical Systems and Signal Processing, 2011, 25, 1559-1573.	4.4	134
3	Convolutional neural networks for automated damage recognition and damage type identification. Structural Control and Health Monitoring, 2018, 25, e2230.	1.9	119
4	Deep variational auto-encoders: A promising tool for dimensionality reduction and ball bearing elements fault diagnosis. Structural Health Monitoring, 2019, 18, 1092-1128.	4.3	94
5	Identification of nonlinear dynamic coefficients in plain journal bearings. Tribology International, 2008, 41, 743-754.	3.0	70
6	Structural damage assessment under varying temperature conditions. Structural Health Monitoring, 2012, 11, 345-357.	4.3	63
7	The effect of molecular weight and hydrolysis degree of poly(vinyl alcohol)(PVA) on the thermal and mechanical properties of poly(lactic acid)/PVA blends. Polimeros, 2018, 28, 169-177.	0.2	54
8	Damage assessment in a sandwich panel based on full-field vibration measurements. Journal of Sound and Vibration, 2018, 417, 1-18.	2.1	52
9	Model updating using antiresonant frequencies identified from transmissibility functions. Journal of Sound and Vibration, 2013, 332, 807-820.	2.1	45
10	Damage Detection with Parallel Genetic Algorithms and Operational Modes. Structural Health Monitoring, 2010, 9, 481-496.	4.3	39
11	Ensemble classification method for structural damage assessment under varying temperature. Structural Health Monitoring, 2018, 17, 747-762.	4.3	39
12	Deep Convolutional Neural Network-Based Structural Damage Localization and Quantification Using Transmissibility Data. Shock and Vibration, 2019, 2019, 1-27.	0.3	37
13	On the effect of downtime costs and budget constraint on preventive and replacement policies. Reliability Engineering and System Safety, 2008, 93, 144-151.	5.1	36
14	Similitudes for the structural response of flexural plates. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 174-188.	1.1	34
15	Deep semi-supervised generative adversarial fault diagnostics of rolling element bearings. Structural Health Monitoring, 2020, 19, 390-411.	4.3	32
16	Mechanical properties updating of a non-uniform natural fibre composite panel by means of a parallel genetic algorithm. Composites Part A: Applied Science and Manufacturing, 2017, 94, 226-233.	3.8	26
17	Experimental investigation into techniques to predict leak shapes in water distribution systems using vibration measurements. Journal of Hydroinformatics, 2018, 20, 815-828.	1.1	26
18	A Broadband Vibration-Based Energy Harvester Using an Array of Piezoelectric Beams Connected by Springs. Shock and Vibration, 2016, 2016, 1-13.	0.3	23

#	Article	IF	Citations
19	Uncertainties propagation and global sensitivity analysis of the frequency response function of piezoelectric energy harvesters. Smart Materials and Structures, 2017, 26, 065003.	1.8	23
20	Prediction of leak flow rate in plastic water distribution pipes using vibro-acoustic measurements. Structural Health Monitoring, 2018, 17, 959-970.	4.3	21
21	Structural damage assessment with antiresonances versus mode shapes using parallel genetic algorithms. Structural Control and Health Monitoring, 2011, 18, 825-839.	1.9	20
22	Structural damage assessment using linear approximation with maximum entropy and transmissibility data. Mechanical Systems and Signal Processing, 2015, 54-55, 210-223.	4.4	20
23	Real-Time Structural Damage Assessment Using Artificial Neural Networks and Antiresonant Frequencies. Shock and Vibration, 2014, 2014, 1-14.	0.3	19
24	Hydrological Early Warning System Based on a Deep Learning Runoff Model Coupled with a Meteorological Forecast. Water (Switzerland), 2019, 11, 1808.	1.2	19
25	Online Sequential Extreme Learning Machine for Vibration-Based Damage Assessment Using Transmissibility Data. Journal of Computing in Civil Engineering, 2016, 30, .	2.5	17
26	An inverse parallel genetic algorithm for the identification of skin/core debonding in honeycomb aluminium panels. Structural Control and Health Monitoring, 2015, 22, 1426-1439.	1.9	16
27	Numerical and experimental results for the frequency response of plates in similitude. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 3212-3221.	1.1	14
28	Experimental validation of a deep neural networkâ€"Sparse representation classification ensemble method. Structural Design of Tall and Special Buildings, 2018, 27, e1504.	0.9	14
29	A Maximum Entropy Approach to Assess Debonding in Honeycomb aluminum Plates. Entropy, 2014, 16, 2869-2889.	1.1	13
30	A novel impact identification algorithm based on a linear approximation with maximum entropy. Smart Materials and Structures, 2016, 25, 095050.	1.8	13
31	Effect of rare earth dopants on structural and mechanical properties of nanoceria synthesized by combustion method. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 649, 168-173.	2.6	11
32	Development of a Machine Learning based model for Damage Detection, Localization and Quantification to extend Structure Life. Procedia CIRP, 2021, 98, 199-204.	1.0	11
33	Experimental study of the variations in the electromechanical properties of piezoelectric energy harvesters and their impact on the frequency response function. Mechanical Systems and Signal Processing, 2019, 115, 469-482.	4.4	10
34	Ferroelastic behavior of LaCoO3: A comparison of impression and compression techniques. Journal of the European Ceramic Society, 2019, 39, 1569-1576.	2.8	9
35	The vibroacoustic behaviour of aluminium foam sandwich panels in similitude. Journal of Sandwich Structures and Materials, 2021, 23, 4170-4195.	2.0	8
36	A Deep Learning Framework for Damage Assessment of Composite Sandwich Structures. Shock and Vibration, 2021, 2021, 1-12.	0.3	8

#	Article	IF	Citations
37	Modal Strain Energy-Based Debonding Assessment of Sandwich Panels Using a Linear Approximation with Maximum Entropy. Entropy, 2017, 19, 619.	1.1	7
38	Effect of Sr 2+ and Ba 2+ doping on structural stability and mechanical properties of La 2 NiO 4+Î´. Ceramics International, 2018, 44, 10551-10557.	2.3	7
39	Phononic Bandgap Optimization in Sandwich Panels Using Cellular Truss Cores. Materials, 2021, 14, 5236.	1.3	7
40	Impact Location and Quantification on an Aluminum Sandwich Panel Using Principal Component Analysis and Linear Approximation with Maximum Entropy. Entropy, 2017, 19, 137.	1.1	6
41	Gapped Gaussian smoothing technique for debonding assessment with automatic thresholding. Structural Control and Health Monitoring, 2019, 26, e2371.	1.9	6
42	Phononic band gap optimization in truss-like cellular structures using smooth P-norm approximations. Structural and Multidisciplinary Optimization, 2021, 64, 113-124.	1.7	6
43	Damage Detection in Steelâ€"Concrete Composite Structures by Impact Hammer Modal Testing and Experimental Validation. Sensors, 2022, 22, 3874.	2.1	6
44	Impact identification using nonlinear dimensionality reduction and supervised learning. Smart Materials and Structures, 2019, 28, 115005.	1.8	5
45	Structural and mechanical properties of La0.6Sr0.4M0.1Fe0.9O3-Î´ (M: Co, Ni and Cu) perovskites. Ceramics International, 2017, 43, 2089-2094.	2.3	3
46	Room Temperature Ferroelastic Creep Behavior of Porous (La0.6Sr0.4)0.95Co0.2Fe0.8O3-Î´. Processes, 2020, 8, 1346.	1.3	3
47	Evaluation of plates in similitude by experimental tests and artificial neural networks. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2022, 236, 852-872.	1.1	1
48	Damage Location by Maximum Entropy Method on a Civil Structure. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 105-115.	0.3	0
49	A Bayesian updating procedure for the electromechanical properties of piezoelectric energy harvesters. MATEC Web of Conferences, 2018, 211, 05002.	0.1	0