Enrique GarcÃ-a-MacÃ-as

List of Publications by Year
in descending order

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56	1,578	304602	315616
papers	citations	22 h-index	38 g-index

58	58	58	989
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bending and free vibration analysis of functionally graded graphene vs. carbon nanotube reinforced composite plates. Composite Structures, 2018, 186, 123-138.	3.1	142
2	Micromechanics modeling of the electrical conductivity of carbon nanotube cement-matrix composites. Composites Part B: Engineering, 2017, 108, 451-469.	5.9	137
3	Micromechanics modeling of the uniaxial strain-sensing property of carbon nanotube cement-matrix composites for SHM applications. Composite Structures, 2017, 163, 195-215.	3.1	131
4	An Experimental Study on Static and Dynamic Strain Sensitivity of Embeddable Smart Concrete Sensors Doped with Carbon Nanotubes for SHM of Large Structures. Sensors, 2018, 18, 831.	2.1	71
5	Static and free vibration analysis of functionally graded carbon nanotube reinforced skew plates. Composite Structures, 2016, 140, 473-490.	3.1	66
6	Damage detection, localization and quantification in conductive smart concrete structures using a resistor mesh model. Engineering Structures, 2017, 148, 924-935.	2.6	66
7	Buckling analysis of functionally graded carbon nanotube-reinforced curved panels under axial compression and shear. Composites Part B: Engineering, 2017, 108, 243-256.	5.9	64
8	Multiscale modeling of the elastic moduli of CNT-reinforced polymers and fitting of efficiency parameters for the use of the extended rule-of-mixtures. Composites Part B: Engineering, 2019, 159, 114-131.	5.9	62
9	Enhanced lumped circuit model for smart nanocomposite cement-based sensors under dynamic compressive loading conditions. Sensors and Actuators A: Physical, 2017, 260, 45-57.	2.0	60
10	Eshelby-Mori-Tanaka approach for post-buckling analysis of axially compressed functionally graded CNT/polymer composite cylindrical panels. Composites Part B: Engineering, 2017, 128, 208-224.	5.9	54
11	MOVA/MOSS: Two integrated software solutions for comprehensive Structural Health Monitoring of structures. Mechanical Systems and Signal Processing, 2020, 143, 106830.	4.4	53
12	3D mixed micromechanics-FEM modeling of piezoresistive carbon nanotube smart concrete. Computer Methods in Applied Mechanics and Engineering, 2018, 340, 396-423.	3.4	52
13	Metamodel-based approach for stochastic free vibration analysis of functionally graded carbon nanotube reinforced plates. Composite Structures, 2016, 152, 183-198.	3.1	47
14	E. Torrojaâ€™s bridge: Tailored experimental setup for SHM of a historical bridge with a reduced number of sensors. Engineering Structures, 2018, 162, 11-21.	2.6	44
15	Static and Dynamic Strain Monitoring of Reinforced Concrete Components through Embedded Carbon Nanotube Cement-Based Sensors. Shock and Vibration, 2017, 2017, 1-11.	0.3	38
16	An Innovative Methodology for Online Surrogate-Based Model Updating of Historic Buildings Using Monitoring Data. International Journal of Architectural Heritage, 2021, 15, 92-112.	1.7	37
17	Earthquakeâ€induced damage detection and localization in masonry structures using smart bricks and Kriging strain reconstruction: A numerical study. Earthquake Engineering and Structural Dynamics, 2019, 48, 548-569.	2.5	27
18	A Weigh-in-Motion Characterization Algorithm for Smart Pavements Based on Conductive Cementitious Materials. Sensors, 2020, 20, 659.	2.1	27

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19	Evaluation of optimal sensor placement algorithms for the Structural Health Monitoring of architectural heritage. Application to the Monastery of San JerÃ³nimo de Buenavista (Seville, Spain). Engineering Structures, 2020, 202, 109843.	2.6	26
20	Metamodel-based pattern recognition approach for real-time identification of earthquake-induced damage in historic masonry structures. Automation in Construction, 2020, 120, 103389.	4.8	23
21	The use of receiver operating characteristic curves and precision-versus-recall curves as performance metrics in unsupervised structural damage classification under changing environment. Engineering Structures, 2021, 246, 113029.	2.6	23
22	CNT-polymer nanocomposites under frictional contact conditions. Composites Part B: Engineering, 2018, 154, 114-127.	5.9	22
23	Automated operational modal analysis and ambient noise deconvolution interferometry for the full structural identification of historic towers: A case study of the Sciri Tower in Perugia, Italy. Engineering Structures, 2020, 215, 110615.	2.6	22
24	Crack detection and localization in RC beams through smart MWCNT/epoxy strip-like strain sensors. Smart Materials and Structures, 2018, 27, 115022.	1.8	21
25	Coupled effect of CNT waviness and agglomeration: A case study of vibrational analysis of CNT/polymer skew plates. Composite Structures, 2018, 193, 87-102.	3.1	20
26	A transfer Bayesian learning methodology for structural health monitoring of monumental structures. Engineering Structures, 2021, 247, 113089.	2.6	20
27	Design of lead-free PVDF/CNT/BaTiO₃ piezocomposites for sensing and energy harvesting: the role of polycrystallinity, nanoadditives, and anisotropy. Smart Materials and Structures, 2020, 29, 015021.	1.8	18
28	MWCNT/epoxy strip-like sensors for buckling detection in beam-like structures. Thin-Walled Structures, 2018, 133, 27-41.	2.7	17
29	Micromechanics-based phase field fracture modelling of CNT composites. Composites Part B: Engineering, 2022, 236, 109788.	5.9	17
30	Two-step hierarchical micromechanics model of partially saturated porous composites doped with ellipsoidal particles with interface effects. Composites Part B: Engineering, 2018, 148, 49-60.	5.9	16
31	Seismic interferometry for earthquake-induced damage identification in historic masonry towers. Mechanical Systems and Signal Processing, 2019, 132, 380-404.	4.4	16
32	Design of nano-modified PVDF matrices for lead-free piezocomposites: Graphene vs carbon nanotube nano-additions. Mechanics of Materials, 2020, 142, 103275.	1.7	14
33	Synergistic application of operational modal analysis and ambient noise deconvolution interferometry for structural and damage identification in historic masonry structures: three case studies of Italian architectural heritage. Structural Health Monitoring, 2020, 19, 1250-1272.	4.3	11
34	Least Angle Regression for early-stage identification of earthquake-induced damage in a monumental masonry palace: Palazzo dei Consoli. Engineering Structures, 2022, 259, 114119.	2.6	11
35	Closed-form solutions for the piezoresistivity properties of short-fiber reinforced composites with percolation-type behavior. Carbon, 2021, 184, 923-940.	5.4	10
36	Multi-scale model updating of a timber footbridge using experimental vibration data. Engineering Computations, 2017, 34, 754-780.	0.7	9

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37	Crack-induced electrical resistivity changes in cracked CNT-reinforced composites. Theoretical and Applied Fracture Mechanics, 2020, 106, 102470.	2.1	9
38	XFEM crack growth virtual monitoring in self-sensing CNT reinforced polymer nanocomposite plates using ANSYS. Composite Structures, 2022, 284, 115137.	3.1	8
39	Effective medium electrical response model of carbon nanotubes cement-based composites. Construction and Building Materials, 2022, 344, 128293.	3.2	8
40	Continuous and embedded solutions for SHM of concrete structures using changing electrical potential in self-sensing cement-based composites. Proceedings of SPIE, 2017, , .	0.8	7
41	Integrated SHM Systems: Damage Detection Through Unsupervised Learning and Data Fusion. Structural Integrity, 2022, , 247-268.	0.8	7
42	Recent Advances on SHM of Reinforced Concrete and Masonry Structures Enabled by Self-Sensing Structural Materials. Proceedings (mdpi), 2018, 2, 119.	0.2	6
43	An interactive computational strategy for teaching the analysis of silo structures in civil engineering. Computer Applications in Engineering Education, 2019, 27, 821-835.	2.2	5
44	Forced vibration analysis of composite beams based on the variable separation method. Mechanics of Advanced Materials and Structures, 2021, 28, 618-634.	1.5	5
45	Train-speed sensitivity approach for maximum response envelopes in dynamics of railway bridges. Journal of Sound and Vibration, 2019, 452, 13-33.	2.1	3
46	Mathematical modeling and simulation. , 2020, , 101-156.		3
47	Bayesian-Based Damage Assessment ofÂHistorical Structures Using Vibration Monitoring Data. Lecture Notes in Civil Engineering, 2021, , 415-429.	0.3	3
48	Hilbert transform-based semi-analytic meta-model for maximum response envelopes in dynamics of railway bridges. Journal of Sound and Vibration, 2020, 487, 115618.	2.1	2
49	Uncertainty Analysis of Mechanical Behavior of Functionally Graded Carbon Nanotube Composite Materials. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 59-72.	0.3	2
50	ENHANCED CONTINUOUS DYNAMIC MONITORING OF A COMPLEX MONUMENTAL PALACE THROUGH A LARGER SENSOR NETWORK. , 2020, , .		2
51	Structural assessment of bridges through ambient noise deconvolution interferometry: application to the lateral dynamic behaviour of a RC multi-span viaduct. Archives of Civil and Mechanical Engineering, 2021, 21, 1.	1.9	1
52	Ambient Vibration Testing of Historic Steel-Composite Bridge, the E. Torroja Bridge, for Structural Identification and Finite Element Model Updating. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 147-155.	0.3	1
53	Bayesian-Based Fusion of Monitoring Data and Visual Inspections in Monumental Structures. Lecture Notes in Civil Engineering, 2023, , 1066-1075.	0.3	1
54	Structural health monitoring of grandstands: a review. MATEC Web of Conferences, 2015, 24, 07005.	0.1	0

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55	Novel Structural Health Monitoring Software Systems Exploiting Heterogeneous Sensing Solutions and Data Fusion for Enhanced Local/Global Damage Identification of Historic Structures. Lecture Notes in Civil Engineering, 2021, , 927-936.	0.3	0
56	An XFEM-based numerical scheme to compute crack-induced electrical resistivity changes in cracked CNT-reinforced composites using ANSYS. AIP Conference Proceedings, 2020, , .	0.3	0