David Mascarenas

List of Publications by Year
in descending order

32 papers	788 citations	759233 12 h-index	610901 24 g-index
37 all docs	37 docs citations	37 times ranked	555 citing authors

#	Article	IF	Citations
1	3D structural vibration identification from dynamic point clouds. Mechanical Systems and Signal Processing, 2022, 166, 108352.	8.0	10
2	Digital coded exposure formation of frames from event-based imagery. Neuromorphic Computing and Engineering, 2022, 2, 014005.	5.9	1
3	Imager-Based Characterization of Viscoelastic Material Properties. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 215-224.	0.5	0
4	Full-Field Mode Shape Analysis, Alignment and Averaging Across Measurements. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 71-75.	0.5	0
5	Imager-Based Techniques for Analyzing Metallic Melt Pools for Additive Manufacturing. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 63-69.	0.5	0
6	Nonnegative matrix factorization-based blind source separation for full-field and high-resolution modal identification from video. Journal of Sound and Vibration, 2020, 487, 115586.	3.9	18
7	Sparse and Random Sampling Techniques for High-Resolution, Full-Field, BSS-Based Structural Dynamics Identification from Video. Sensors, 2020, 20, 3526.	3.8	15
8	Spatio-temporal decomposition of 2D travelling waves from video measurements. Mechanical Systems and Signal Processing, 2020, 139, 106599.	8.0	5
9	Blind, simultaneous identification of full-field vibration modes and large rigid-body motion of output-only structures from digital video measurements. Engineering Structures, 2020, 207, 110183.	5.3	28
10	Light Field Imaging of Three-Dimensional Structural Dynamics. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 101-108.	0.5	0
11	Estimation of fullâ€field dynamic strains from digital video measurements of outputâ€only beam structures by video motion processing and modal superposition. Structural Control and Health Monitoring, 2019, 26, e2408.	4.0	15
12	Augmented Reality for Enabling Smart Nuclear Infrastructure. Frontiers in Built Environment, 2019, 5, .	2.3	11
13	Full-Field Mode Shape Identification of Vibrating Structures from Compressively Sampled Video. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 93-99.	0.5	0
14	Estimation of fullâ€field, fullâ€order experimental modal model of cable vibration from digital video measurements with physicsâ€guided unsupervised machine learning and computer vision. Structural Control and Health Monitoring, 2019, 26, e2358.	4.0	30
15	A framework for the identification of full-field structural dynamics using sequences of images in the presence of non-ideal operating conditions. Journal of Intelligent Material Systems and Structures, 2018, 29, 3456-3481.	2.5	10
16	Reference-free detection of minute, non-visible, damage using full-field, high-resolution mode shapes output-only identified from digital videos of structures. Structural Health Monitoring, 2018, 17, 514-531.	7.5	50
17	Efficient Full-Field Vibration Measurements and Operational Modal Analysis Using Neuromorphic Event-Based Imaging. Journal of Engineering Mechanics - ASCE, 2018, 144, .	2.9	19
18	Spatiotemporal video-domain high-fidelity simulation and realistic visualization of full-field dynamic responses of structures by a combination of high-spatial-resolution modal model and video motion manipulations. Structural Control and Health Monitoring, 2018, 25, e2193.	4.0	9

#	Article	IF	Citations
19	Full-field Structural Dynamics by Video Motion Manipulation. , 2017, , .		3
20	Extraction of Full-Field Structural Dynamics from Digital Video Measurements in Presence of Large Rigid Body Motion. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 91-95.	0.5	4
21	Efficient Full-Field Operational Modal Analysis Using Neuromorphic Event-Based Imaging. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 97-103.	0.5	3
22	Identification of Full-Field Dynamic Loads on Structures Using Computer Vision and Unsupervised Machine Learning. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 41-48.	0.5	2
23	Establishment of Full-Field, Full-Order Dynamic Model of Cable Vibration by Video Motion Manipulations. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 127-133.	0.5	4
24	Blind identification of full-field vibration modes of output-only structures from uniformly-sampled, possibly temporally-aliased (sub-Nyquist), video measurements. Journal of Sound and Vibration, 2017, 390, 232-256.	3.9	96
25	Blind identification of full-field vibration modes from video measurements with phase-based video motion magnification. Mechanical Systems and Signal Processing, 2017, 85, 567-590.	8.0	273
26	Automated Extraction of Mode Shapes Using Motion Magnified Video and Blind Source Separation. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 355-360.	0.5	11
27	Extending our Nocioceptive Sense to Structures: Haptic Interfaces for Structural Health Monitoring. IABSE Symposium Report, 2015, , .	0.0	0
28	A haptic-inspired approach of ultrasonic nondestructive damage classification. , 2015, , .		0
29	A haptic-inspired audio approach for structural health monitoring decision-making. Proceedings of SPIE, 2015, , .	0.8	3
30	A vibro-haptic humanâ€“machine interface for structural health monitoring. Structural Health Monitoring, 2014, 13, 671-685.	7.5	18
31	Compressed sensing techniques for detecting damage in structures. Structural Health Monitoring, 2013, 12, 325-338.	7.5	66
32	A Mobile Host Approach for Wireless Powering and Interrogation of Structural Health Monitoring Sensor Networks. IEEE Sensors Journal, 2009, 9, 1719-1726.	4.7	84