

David Mascarenas

List of Publications by Year in descending order

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Version: 2024-02-01

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	Blind identification of full-field vibration modes from video measurements with phase-based video motion magnification. <i>Mechanical Systems and Signal Processing</i> , 2017, 85, 567-590.	8.0	273
2	Blind identification of full-field vibration modes of output-only structures from uniformly-sampled, possibly temporally-aliased (sub-Nyquist), video measurements. <i>Journal of Sound and Vibration</i> , 2017, 390, 232-256.	3.9	96
3	A Mobile Host Approach for Wireless Powering and Interrogation of Structural Health Monitoring Sensor Networks. <i>IEEE Sensors Journal</i> , 2009, 9, 1719-1726.	4.7	84
4	Compressed sensing techniques for detecting damage in structures. <i>Structural Health Monitoring</i> , 2013, 12, 325-338.	7.5	66
5	Reference-free detection of minute, non-visible, damage using full-field, high-resolution mode shapes output-only identified from digital videos of structures. <i>Structural Health Monitoring</i> , 2018, 17, 514-531.	7.5	50
6	Estimation of full-field, full-order experimental modal model of cable vibration from digital video measurements with physics-guided unsupervised machine learning and computer vision. <i>Structural Control and Health Monitoring</i> , 2019, 26, e2358.	4.0	30
7	Blind, simultaneous identification of full-field vibration modes and large rigid-body motion of output-only structures from digital video measurements. <i>Engineering Structures</i> , 2020, 207, 110183.	5.3	28
8	Efficient Full-Field Vibration Measurements and Operational Modal Analysis Using Neuromorphic Event-Based Imaging. <i>Journal of Engineering Mechanics - ASCE</i> , 2018, 144, .	2.9	19
9	A vibro-haptic human-machine interface for structural health monitoring. <i>Structural Health Monitoring</i> , 2014, 13, 671-685.	7.5	18
10	Nonnegative matrix factorization-based blind source separation for full-field and high-resolution modal identification from video. <i>Journal of Sound and Vibration</i> , 2020, 487, 115586.	3.9	18
11	Estimation of full-field dynamic strains from digital video measurements of output-only beam structures by video motion processing and modal superposition. <i>Structural Control and Health Monitoring</i> , 2019, 26, e2408.	4.0	15
12	Sparse and Random Sampling Techniques for High-Resolution, Full-Field, BSS-Based Structural Dynamics Identification from Video. <i>Sensors</i> , 2020, 20, 3526.	3.8	15
13	Automated Extraction of Mode Shapes Using Motion Magnified Video and Blind Source Separation. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2016, , 355-360.	0.5	11
14	Augmented Reality for Enabling Smart Nuclear Infrastructure. <i>Frontiers in Built Environment</i> , 2019, 5, .	2.3	11
15	A framework for the identification of full-field structural dynamics using sequences of images in the presence of non-ideal operating conditions. <i>Journal of Intelligent Material Systems and Structures</i> , 2018, 29, 3456-3481.	2.5	10
16	3D structural vibration identification from dynamic point clouds. <i>Mechanical Systems and Signal Processing</i> , 2022, 166, 108352.	8.0	10
17	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. <i>Structural Control and Health Monitoring</i> , 2018, 25, e2193.	4.0	9
18	Spatio-temporal decomposition of 2D travelling waves from video measurements. <i>Mechanical Systems and Signal Processing</i> , 2020, 139, 106599.	8.0	5

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	A haptic-inspired audio approach for structural health monitoring decision-making. Proceedings of SPIE, 2015, , .	0.8	3
22	Full-field Structural Dynamics by Video Motion Manipulation. , 2017, , .		3
23	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
24	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
25	Digital coded exposure formation of frames from event-based imagery. Neuromorphic Computing and Engineering, 2022, 2, 014005.	5.9	1
26	Extending our Nocioceptive Sense to Structures: Haptic Interfaces for Structural Health Monitoring. IABSE Symposium Report, 2015, , .	0.0	0
27	A haptic-inspired approach of ultrasonic nondestructive damage classification. , 2015, , .		0
28	Light Field Imaging of Three-Dimensional Structural Dynamics. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 101-108.	0.5	0
29	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
30	Imager-Based Characterization of Viscoelastic Material Properties. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 215-224.	0.5	0
31	Full-Field Mode Shape Analysis, Alignment and Averaging Across Measurements. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 71-75.	0.5	0
32	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