Wei Xu

List of Publications by Year
in descending order

31 papers	693 citations	623734 14 h-index	580821 25 g-index
31 all docs	31 docs citations	31 times ranked	449 citing authors

#	Article	IF	Citations
1	Shear Strain Singularity-Inspired Identification of Initial Delamination in CFRP Laminates: Multiscale Modulation Filter for Extraction of Damage Features. Polymers, 2022, 14, 2305.	4.5	0
2	Nonlinear pseudo-force in â€œbreathingâ€•delamination to generate harmonics: A mechanism and application study. International Journal of Mechanical Sciences, 2021, 192, 106124.	6.7	8
3	Nonlinear pseudo-force in a breathing crack to generate harmonics. Journal of Sound and Vibration, 2021, 492, 115734.	3.9	28
4	Use of Bispectrum Analysis to Inspect the Non-Linear Dynamic Characteristics of Beam-Type Structures Containing a Breathing Crack. Sensors, 2021, 21, 1177.	3.8	17
5	A novel structural damage identification approach using damage-induced perturbation in longitudinal vibration. Journal of Sound and Vibration, 2021, 496, 115932.	3.9	8
6	Identification of Multiple Cracks in Composite Laminated Beams Using Perturbation to Dynamic Equilibrium. Sensors, 2021, 21, 6171.	3.8	3
7	Multiple damage detection in laminated composite beams by data fusion of Teager energy operator-wavelet transform mode shapes. Composite Structures, 2020, 235, 111798.	5.8	42
8	A Comparative Study on Structural Damage Detection Using Derivatives of Laser-Measured Flexural and Longitudinal Vibration Shapes. Journal of Nondestructive Evaluation, 2020, 39, 1.	2.4	4
9	Singular energy component for identification of initial delamination in CFRP laminates through piezoelectric actuation and non-contact measurement. Smart Materials and Structures, 2020, 29, 045001.	3.5	15
10	A novel damage characterization approach for laminated composites in the absence of material and structural information. Mechanical Systems and Signal Processing, 2020, 143, 106831.	8.0	19
11	A novel damage index for damage detection and localization of plate-type structures using twist derivatives of laser-measured mode shapes. Journal of Sound and Vibration, 2020, 481, 115448.	3.9	6
12	Non-uniform crack identification in plate-like structures using wavelet 2D modal curvature under noisy conditions. Mechanical Systems and Signal Processing, 2019, 126, 469-489.	8.0	35
13	Damage Identification in Bridges by Processing Dynamic Responses to Moving Loads: Features and Evaluation. Sensors, 2019, 19, 463.	3.8	29
14	A segmenting scheme for evaluating exact high-order modes of uniform Timoshenko beams. Applied Acoustics, 2019, 150, 76-80.	3.3	2
15	A noise-robust damage indicator for characterizing singularity of mode shapes for incipient delamination identification in CFRP laminates. Mechanical Systems and Signal Processing, 2019, 121, 183-200.	8.0	18
16	Novel Techniques for Damage Detection Based on Mode Shape Analysis. Computational and Experimental Methods in Structures, 2018, , 173-196.	0.3	2
17	A damage index for identifying incipient delamination in CFRP laminated plates relying on 2D multi-resolution modal Teager-Kaiser energy. , 2018, , .		0
18	Delamination monitoring in CFRP laminated plates under noisy conditions using complex-wavelet 2D curvature mode shapes. Smart Materials and Structures, 2017, 26, 104008.	3.5	21

#	Article	IF	Citations
19	Crack Identification in CFRP Laminated Beams Using Multi-Resolution Modal Teagerâ€“Kaiser Energy under Noisy Environments. Materials, 2017, 10, 656.	2.9	12
20	A concept of complex-wavelet modal curvature for detecting multiple cracks in beams under noisy conditions. Mechanical Systems and Signal Processing, 2016, 76-77, 555-575.	8.0	49
21	Identification of Incipient Damage Using High-Frequency Vibrational Responses. Shock and Vibration, 2015, 2015, 1-1.	0.6	2
22	Two-dimensional curvature mode shape method based on wavelets and Teager energy for damage detection in plates. Journal of Sound and Vibration, 2015, 347, 266-278.	3.9	71
23	Robust modal curvature features for identifying multiple damage in beams. , 2014, , .		0
24	Numerical Evaluation of High-Order Modes for Stepped Beam. Journal of Vibration and Acoustics, Transactions of the ASME, 2014, 136, .	1.6	13
25	Damage identification for beams in noisy conditions based on Teager energy operator-wavelet transform modal curvature. Journal of Sound and Vibration, 2014, 333, 1543-1553.	3.9	108
26	Identification of multiple damage in beams based on robust curvature mode shapes. Mechanical Systems and Signal Processing, 2014, 46, 468-480.	8.0	133
27	Detection of damage in beams using Teager energy operator. Proceedings of SPIE, 2013, , .	0.8	0
28	Damage detection in plates using two-dimensional directional Gaussian wavelets and laser scanned operating deflection shapes. Structural Health Monitoring, 2013, 12, 457-468.	7.5	43
29	Multiscale characterization of damage in plates based on 2D Mexican wavelet. Proceedings of SPIE, 2013, , .	0.8	0
30	Definition of the general initial water penetration fracture criterion for concrete and its engineering application. Science China Technological Sciences, 2011, 54, 1575-1580.	4.0	3
31	Imaging Delamination in Composite Laminates Using Perturbation to Steady-state Wavefields. Smart Materials and Structures, 0, , .	3.5	2