Xinqun Zhu

List of Publications by Citations

118 papers	2,605 citations	29 h-index	46 g-index
131 ext. papers	3,152 ext. citations	3.3 avg, IF	5.55 L-index

#	Paper	IF	Citations
118	Wavelet-based crack identification of bridge beam from operational deflection time history. *International Journal of Solids and Structures*, **2006**, 43, 2299-2317	3.1	166
117	Bridge dynamic responses due to road surface roughness and braking of vehicle. *Journal of Sound and Vibration*, **2005**, 282, 805-830	3.9	98
116	Structural damage detection from wavelet packet sensitivity. *Engineering Structures*, **2005**, 27, 1339-1348	4.7	89
115	Dynamic behavior of damaged concrete bridge structures under moving vehicular loads. *Engineering Structures*, **2004**, 26, 1279-1293	4.7	85
114	Innovative Bridge Condition Assessment from Dynamic Response of a Passing Vehicle. *Journal of Engineering Mechanics - ASCE*, **2006**, 132, 1372-1379	2.4	83
113	Guided wave propagation and spectral element method for debonding damage assessment in RC structures. *Journal of Sound and Vibration*, **2009**, 324, 751-772	3.9	79
112	Vehicle axle loads identification using finite element method. *Engineering Structures*, **2004**, 26, 1143-1153	4.7	79
111	Structural Health Monitoring Based on Vehicle-Bridge Interaction: Accomplishments and Challenges. *Advances in Structural Engineering*, **2015**, 18, 1999-2015	1.9	71
110	Time-varying wind load identification from structural responses. *Engineering Structures*, **2005**, 27, 1586-1598	4.7	66
109	Time-varying system identification using a newly improved HHT algorithm. *Computers and Structures*, **2009**, 87, 1611-1623	4.5	65
108	DYNAMIC LOAD ON CONTINUOUS MULTI-LANE BRIDGE DECK FROM MOVING VEHICLES. *Journal of Sound and Vibration*, **2002**, 251, 697-716	3.9	63
107	Damage Detection in Simply Supported Concrete Bridge Structure Under Moving Vehicular Loads. *Journal of Vibration and Acoustics, Transactions of the ASME*, **2007**, 129, 58-65	1.6	59
106	Regularization in Moving Force Identification. *Journal of Engineering Mechanics - ASCE*, **2001**, 127, 136-148	2.4	57
105	ORTHOGONAL FUNCTION IN MOVING LOADS IDENTIFICATION ON A MULTI-SPAN BRIDGE. *Journal of Sound and Vibration*, **2001**, 245, 329-345	3.9	56
104	Flexural behaviour of composite steel–concrete beams utilising blind bolt shear connectors. *Engineering Structures*, **2016**, 114, 181-194	4.7	54
103	MOVING FORCES IDENTIFICATION ON A MULTI-SPAN CONTINUOUS BRIDGE. *Journal of Sound and Vibration*, **1999**, 228, 377-396	3.9	54
102	Explicit form of an implicit method for inverse force identification. *Journal of Sound and Vibration*, **2014**, 333, 730-744	3.9	51

101	Moving load identification on multi-span continuous bridges with elastic bearings. *Mechanical Systems and Signal Processing*, **2006**, 20, 1759-1782	7.8	50
100	Recent developments in inverse problems of vehicle–bridge interaction dynamics. *Journal of Civil Structural Health Monitoring*, **2016**, 6, 107-128	2.9	49
99	IDENTIFICATION OF VEHICLE AXLE LOADS FROM BRIDGE DYNAMIC RESPONSES. *Journal of Sound and Vibration*, **2000**, 236, 705-724	3.9	44
98	STUDY ON DIFFERENT BEAM MODELS IN MOVING FORCE IDENTIFICATION. *Journal of Sound and Vibration*, **2000**, 234, 661-679	3.9	43
97	Moving Loads Identification Through Regularization. *Journal of Engineering Mechanics - ASCE*, **2002**, 128, 989-1000	2.4	42
96	Evaluation of dynamic vehicle axle loads on bridges with different surface conditions. *Journal of Sound and Vibration*, **2009**, 323, 826-848	3.9	40
95	Moving load identification on a simply supported orthotropic plate. *International Journal of Mechanical Sciences*, **2007**, 49, 1262-1275	5.5	38
94	Indirect bridge modal parameters identification with one stationary and one moving sensors and stochastic subspace identification. *Journal of Sound and Vibration*, **2019**, 446, 1-21	3.9	37
93	Condition Assessment of Shear Connectors in Slab-Girder Bridges via Vibration Measurements. *Journal of Bridge Engineering*, **2008**, 13, 43-54	2.7	36
92	Dynamic Behavior of Orthotropic Rectangular Plates under Moving Loads. *Journal of Engineering Mechanics - ASCE*, **2003**, 129, 79-87	2.4	32
91	Detection of delamination between steel bars and concrete using embedded piezoelectric actuators/sensors. *Journal of Civil Structural Health Monitoring*, **2013**, 3, 105-115	2.9	31
90	PRACTICAL ASPECTS IN MOVING LOAD IDENTIFICATION. *Journal of Sound and Vibration*, **2002**, 258, 123-146	3.9	30
89	Time-dependent behaviour of composite beams with blind bolts under sustained loads. *Journal of Constructional Steel Research*, **2015**, 112, 196-207	3.8	29
88	Compressive sensing for efficient health monitoring and effective damage detection of structures. *Mechanical Systems and Signal Processing*, **2017**, 84, 414-430	7.8	28
87	Measurement System With Accelerometer Integrated RFID Tag for Infrastructure Health Monitoring. *IEEE Transactions on Instrumentation and Measurement*, **2016**, 65, 1163-1171	5.2	27
86	Singular spectrum analysis for enhancing the sensitivity in structural damage detection. *Journal of Sound and Vibration*, **2014**, 333, 392-417	3.9	26
85	Crack identification of functionally graded beams using continuous wavelet transform. *Composite Structures*, **2019**, 210, 473-485	5.3	26
84	Non-intrusive schemes for speed and axle identification in bridge-weigh-in-motion systems. *Measurement Science and Technology*, **2017**, 28, 025102	2	23

83	Dynamic behaviour of steel–concrete composite beams with different types of shear connectors. Part I: Experimental study. *Engineering Structures*, **2015**, 103, 298-307	4.7	21
82	Time-varying characteristics of bridges under the passage of vehicles using synchroextracting transform. *Mechanical Systems and Signal Processing*, **2020**, 140, 106727	7.8	21
81	Damage identification of supporting structures with a moving sensory system. *Journal of Sound and Vibration*, **2018**, 415, 111-127	3.9	21
80	Strengthening of existing composite steel-concrete beams utilising bolted shear connectors and welded studs. *Journal of Constructional Steel Research*, **2015**, 114, 417-430	3.8	20
79	Multifunctional cementitious composites with integrated self-sensing and hydrophobic capacities toward smart structural health monitoring. *Cement and Concrete Composites*, **2021**, 118, 103962	8.6	20
78	DYNAMIC ASSESSMENT OF UNDERWATER PIPELINE SYSTEMS USING STATISTICAL MODEL UPDATING. *International Journal of Structural Stability and Dynamics*, **2008**, 08, 271-297	1.9	19
77	A multi-way data analysis approach for structural health monitoring of a cable-stayed bridge. *Structural Health Monitoring*, **2019**, 18, 35-48	4.4	19
76	Vehicle Condition Surveillance on Continuous Bridges Based on Response Sensitivity. *Journal of Engineering Mechanics - ASCE*, **2006**, 132, 78-86	2.4	18
75	Identification of Moving Loads on an Orthotropic Plate. *Journal of Vibration and Acoustics, Transactions of the ASME*, **2001**, 123, 238-244	1.6	18
74	Spectral Element Model Updating for Damage Identification Using Clonal Selection Algorithm. *Advances in Structural Engineering*, **2011**, 14, 837-856	1.9	16
73	DAMAGE DETECTION OF RC SLABS USING NONLINEAR VIBRATION FEATURES. *International Journal of Structural Stability and Dynamics*, **2009**, 09, 687-709	1.9	16
72	Connection stiffness identification of historic timber buildings using Temperature-based sensitivity analysis. *Engineering Structures*, **2017**, 131, 180-191	4.7	15
71	A State Space Formulation for Moving Loads Identification. *Journal of Vibration and Acoustics, Transactions of the ASME*, **2006**, 128, 509-520	1.6	15
70	Time Domain Identification of Moving Loads on Bridge Deck. *Journal of Vibration and Acoustics, Transactions of the ASME*, **2003**, 125, 187-198	1.6	15
69	Wind characteristics of Typhoon Dujuan as measured at a 50m guyed mast. *Wind and Structures, an International Journal*, **2006**, 9, 387-396		15
68	Parametric study and equation of the maximum SCF for concrete filled steel tubular T-joints under axial tension. *Thin-Walled Structures*, **2018**, 129, 145-156	4.7	14
67	Spectral Element Modelling of Wave Propagation with Boundary and Structural Discontinuity Reflections. *Advances in Structural Engineering*, **2012**, 15, 855-870	1.9	14
66	IDENTIFICATION OF MOVING INTERACTION FORCES WITH INCOMPLETE VELOCITY INFORMATION. *Mechanical Systems and Signal Processing*, **2003**, 17, 1349-1366	7.8	14

65	Bolted and welded connectors for the rehabilitation of composite beams. *Journal of Constructional Steel Research*, **2016**, 125, 61-73	3.8	14
64	Dynamic behaviour of steel-concrete composite beams retrofitted with various bolted shear connectors. *Engineering Structures*, **2017**, 131, 115-135	4.7	13
63	Nonlinear Characteristics of Damaged Reinforced Concrete Beam from Hilbert-Huang Transform. *Journal of Structural Engineering*, **2007**, 133, 1186-1191	3	13
62	Nonlinear Characteristics of Damaged Concrete Structures under Vehicular Load. *Journal of Structural Engineering*, **2005**, 131, 1277-1285	3	13
61	Dynamic behaviour of steel–concrete composite beams with different types of shear connectors. Part II: Modelling and comparison. *Engineering Structures*, **2015**, 103, 308-317	4.7	12
60	Statistical Damage Sensitive Feature for Structural Damage Detection Using AR Model Coefficients. *Advances in Structural Engineering*, **2015**, 18, 1551-1562	1.9	12
59	A concrete–steel interface element for damage detection of reinforced concrete structures. *Engineering Structures*, **2007**, 29, 3515-3524	4.7	12
58	Damage assessment of reinforced concrete beams including the load environment. *Structural Engineering and Mechanics*, **2009**, 33, 765-779		12
57	Debonding detection in a carbon fibre reinforced concrete structure using guided waves. *Smart Materials and Structures*, **2019**, 28, 045020	3.4	11
56	Dynamic axle and wheel loads identification: laboratory studies. *Journal of Sound and Vibration*, **2003**, 268, 855-879	3.9	11
55	Characterization of carbon fiber reinforced polymer strengthened concrete and gap detection with a piezoelectric-based sensory technique. *Structural Health Monitoring*, **2019**, 18, 172-179	4.4	11
54	A Two-Step Drive-By Bridge Damage Detection Using Dual Kalman Filter. *International Journal of Structural Stability and Dynamics*, **2020**, 20, 2042006	1.9	10
53	Drive-By Blind Modal Identification with Singular Spectrum Analysis. *Journal of Aerospace Engineering*, **2019**, 32, 04019050	1.4	9
52	Statistical damage classification method based on wavelet packet analysis. *Structural Engineering and Mechanics*, **2013**, 46, 459-486		9
51	EXPERIMENTAL STRESS CONCENTRATION FACTOR IN CONCRETE-FILLED STEEL TUBULAR T-JOINTS. *Journal of Constructional Steel Research*, **2018**, 150, 442-451	3.8	9
50	Damage identification of steel-concrete composite beams based on modal strain energy changes through general regression neural network. *Engineering Structures*, **2021**, 244, 112824	4.7	9
49	Bilinear connection stiffness identification of heritage timber buildings with limited strain measurements. *Engineering Structures*, **2017**, 151, 665-681	4.7	8
48	Substructural Condition Assessment Based on Force Identification and Interface Force Sensitivity. *International Journal of Structural Stability and Dynamics*, **2015**, 15, 1450046	1.9	8

47	Seismic performance analysis of a large-scale single-layer lattice dome with a hybrid three-directional seismic isolation system. *Engineering Structures*, **2020**, 214, 110627	4.7	8
46	Design and Experimental Investigations of a Vibration Based Wireless Measurement System for Bridge Cable Tension Monitoring. *Advances in Structural Engineering*, **2014**, 17, 1657-1668	1.9	8
45	Condition assessment of heritage timber buildings in operational environments. *Journal of Civil Structural Health Monitoring*, **2017**, 7, 505-516	2.9	8
44	Identification of de-bonding between steel bars and concrete using wavelet techniques: Comparative study. *Australian Journal of Structural Engineering*, **2013**, 14,	1.4	8
43	Comprehensive Study of Moving Load Identification on Bridge Structures Using the Explicit Form of Newmark-Method: Numerical and Experimental Studies. *Remote Sensing*, **2021**, 13, 2291	5	8
42	Time-Varying Parameter Identification of Bridges Subject to Moving Vehicles Using Ridge Extraction Based on Empirical Wavelet Transform. *International Journal of Structural Stability and Dynamics*, **2021**, 21, 2150046	1.9	8
41	Response analysis of piezoelectric shells in plane strain under random excitations. *Acta Mechanica Solida Sinica*, **2009**, 22, 152-160	2	7
40	Dynamic Assessment of Shear Connection Conditions in Slab-Girder Bridges by Kullback-Leibler Distance. *Advances in Structural Engineering*, **2012**, 15, 771-780	1.9	7
39	Identification of Railway Ballasted Track Systems from Dynamic Responses of In-Service Trains. *Journal of Aerospace Engineering*, **2018**, 31, 04018060	1.4	7
38	Nothing-on-Road Axle Detection Strategies in Bridge-Weigh-in-Motion for a Cable-Stayed Bridge: Case Study. *Journal of Bridge Engineering*, **2018**, 23, 05018006	2.7	7
37	Vibrational power flow analysis of cracked functionally graded beams. *Thin-Walled Structures*, **2020**, 150, 106626	4.7	6
36	A hybrid approach for parameter optimization of multiple tuned mass dampers in reducing floor vibrations due to occupant walking: Theory and parametric studies. *Advances in Structural Engineering*, **2017**, 20, 1232-1246	1.9	5
35	Free vibration and damage identification of cracked functionally graded plates. *Composite Structures*, **2020**, 250, 112517	5.3	5
34	System parameter identification from projection of inverse analysis. *Journal of Sound and Vibration*, **2017**, 396, 83-107	3.9	4
33	Development of an integrated structural health monitoring system for bridge structures in operational conditions. *Frontiers of Structural and Civil Engineering*, **2012**, 6, 321	2.5	4
32	Damaged cable identification in cable-stayed bridge from bridge deck strain measurements using support vector machine. *Advances in Structural Engineering*,136943322110499	1.9	4
31	Nonlinear dynamic analysis method for large-scale single-layer lattice domes with uncertain-but-bounded parameters. *Engineering Structures*, **2020**, 203, 109780	4.7	4
30	A Steel-Concrete Composite Beam Element for Structural Damage Identification. *International Journal of Structural Stability and Dynamics*, **2020**, 20, 2042015	1.9	4

29	Displacement-dependent nonlinear damping model in steel buildings with bolted joints. *Advances in Structural Engineering*, **2019**, 22, 1049-1061	1.9	4
28	. *IEEE Sensors Journal*, **2019**, 19, 12389-12397	4	3
27	An Experimental Study on Damage Detection of Concrete Structures Using Decentralized Algorithms. *Advances in Structural Engineering*, **2013**, 16, 33-50	1.9	3
26	Response prediction of a 50 m guyed mast under typhoon conditions. *Wind and Structures, an International Journal*, **2006**, 9, 397-412		3
25	Damage detection of circular cylindrical shells by Ritz method. *Journal of Physics: Conference Series*, **2011**, 305, 012117	0.3	2
24	Experimental study on Statistical Damage Detection of RC Structures based on Wavelet Packet Analysis. *Journal of Physics: Conference Series*, **2011**, 305, 012107	0.3	2
23	Aerodynamic flutter and limit cycle analysis for a 2-D wing with pitching freeplay in the supersonic flow **2010**,		2
22	A Novel Slip Sensory System for Interfacial Condition Monitoring of Steel-Concrete Composite Bridges. *Remote Sensing*, **2021**, 13, 3377	5	2
21	Structural damage detection using theWiener filter **2012**, 915-920		2
20	Dynamic field monitoring data analysis of an ancient wooden building in seismic and operational environments. *Earthquake and Structures*, **2016**, 11, 1043-1060		2
19	Fatigue behaviour of concrete-filled steel tubular joints - a review. *International Journal of Lifecycle Performance Engineering*, **2016**, 2, 22	0.3	2
18	A layered beam element for modeling de-bonding of steel bars in concrete and its detection using static measurements. *Structural Control and Health Monitoring*, **2018**, 25, e2142	4.5	1
17	Sensitivity Enhancement for Structural Condition Assessment with Noisy Excitation or with Only Output. *International Journal of Structural Stability and Dynamics*, **2015**, 15, 1450083	1.9	1
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13	An experimental study on distributed damage detection algorithms for structural health monitoring. *Journal of Physics: Conference Series*, **2011**, 305, 012068	0.3	1
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11	Dynamic assessment of undersea pipeline bedding condition **2007**,		1
10	An experimental study for decentralized damage detection of beam structures using wireless sensor networks. *Structural Monitoring and Maintenance*, **2015**, 2, 237-252		1
9	A Hybrid Approach for the Dynamic Instability Analysis of Single-Layer Latticed Domes with Uncertainties. *International Journal of Structural Stability and Dynamics*, **2021**, 21, 2150082	1.9	1
8	Stochastic uncertainty quantification of seismic performance of complex large-scale structures using response spectrum method. *Engineering Structures*, **2021**, 235, 112096	4.7	1
7	Exact Dynamic Characteristic Analysis of Steel-Concrete Composite Continuous Beams. *Shock and Vibration*, **2021**, 2021, 1-13	1.1	1
6	Bridge modal identification based on successive variational mode decomposition using a moving test vehicle. *Advances in Structural Engineering*,136943322210926	1.9	1
5	Some special phenomena and preliminary interpretations about measured strain signals from high-speed impact tests. *International Journal of Structural Engineering*, **2012**, 3, 48	0.9	0
4	Structural dynamic reliability analysis of super large-scale lattice domes during earthquakes using the stochastic finite element method. *Soil Dynamics and Earthquake Engineering*, **2021**, 153, 107076	3.5	0
3	Simultaneous Identification of Bridge Structural Damage and Moving Loads Using the Explicit Form of Newmark-Method: Numerical and Experimental Studies. *Remote Sensing*, **2022**, 14, 119	5	0
2	VIBRATION OF A BEAM WITH A BREATHING CRACK SUBJECT TO MOVING MASS **2006**, 1963-1968		
1	Nonlinear Connection Stiffness Identification of Heritage Timber Buildings Using a Temperature-Driven Multi-Model Approach. *International Journal of Structural Stability and Dynamics*, **2020**, 20, 2042001	1.9	