Yang Wang

List of Publications by Year
in descending order

74 papers	1,767 citations	361296 20 h-index	289141 40 g-index
74 all docs	74 docs citations	74 times ranked	1250 citing authors

#	Article	IF	Citations
1	Performance monitoring of the Geumdang Bridge using a dense network of high-resolution wireless sensors. Smart Materials and Structures, 2006, 15, 1561-1575.	1.8	216
2	A wireless structural health monitoring system with multithreaded sensing devices: design and validation. Structure and Infrastructure Engineering, 2007, 3, 103-120.	2.0	183
3	Passive wireless antenna sensor for strain and crack sensing—electromagnetic modeling, simulation, and testing. Smart Materials and Structures, 2013, 22, 085009.	1.8	115
4	Output-only modal identification of a cable-stayed bridge using wireless monitoring systems. Engineering Structures, 2008, 30, 1820-1830.	2.6	100
5	Passive wireless smart-skin sensor using RFID-based folded patch antennas. International Journal of Smart and Nano Materials, 2011, 2, 22-38.	2.0	87
6	Passive Wireless Frequency Doubling Antenna Sensor for Strain and Crack Sensing. IEEE Sensors Journal, 2016, 16, 5725-5733.	2.4	75
7	A mobile sensing system for structural health monitoring: design and validation. Smart Materials and Structures, 2010, 19, 055011.	1.8	70
8	Decentralized civil structural control using real-time wireless sensing and embedded computing. Smart Structures and Systems, 2007, 3, 321-340.	1.9	69
9	Decentralized ℓ_∞ controller design for large‐scale civil structures. Earthquake Engineering and Structural Dynamics, 2009, 38, 377-401.	2.5	66
10	Wireless Mobile Sensor Network for the System Identification of a Space Frame Bridge. IEEE/ASME Transactions on Mechatronics, 2012, 17, 499-507.	3.7	65
11	Damage detection of metro tunnel structure through transmissibility function and cross correlation analysis using local excitation and measurement. Mechanical Systems and Signal Processing, 2015, 60-61, 59-74.	4.4	59
12	Sensitivity Modeling of an RFID-Based Strain-Sensing Antenna With Dielectric Constant Change. IEEE Sensors Journal, 2015, 15, 6147-6155.	2.4	48
13	A multi-way data analysis approach for structural health monitoring of a cable-stayed bridge. Structural Health Monitoring, 2019, 18, 35-48.	4.3	47
14	In-construction vibration monitoring of a super-tall structure using a long-range wireless sensing system. Smart Structures and Systems, 2011, 7, 83-102.	1.9	45
15	Experimental verification of a wireless sensing and control system for structural control using MR dampers. Earthquake Engineering and Structural Dynamics, 2007, 36, 1303-1328.	2.5	38
16	Large-Deformation Analysis and Experimental Validation of a Flexure-Based Mobile Sensor Node. IEEE/ASME Transactions on Mechatronics, 2012, 17, 606-616.	3.7	36
17	Time-delayed dynamic output feedback ℓ_∞ controller design for civil structures: A decentralized approach through homotopic transformation. Structural Control and Health Monitoring, 2011, 18, 121-139.	1.9	32
18	Structural Control with Multi-Subnet Wireless Sensing Feedback: Experimental Validation of Time-Delayed Decentralized H* Control Design. Advances in Structural Engineering, 2011, 14, 25-39.	1.2	22

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19	Substructure Stiffness and Mass Updating through Minimization of Modal Dynamic Residuals. Journal of Engineering Mechanics - ASCE, 2016, 142, .	1.6	21
20	Parameter identification of a differentiable Bouc-Wen model using constrained extended Kalman filter. Structural Health Monitoring, 2021, 20, 360-378.	4.3	21
21	On-line structural damage localization and quantification using wireless sensors. Smart Materials and Structures, 2011, 20, 105025.	1.8	20
22	Development of an extensible dual-core wireless sensing node for cyber-physical systems. , 2014, , .		20
23	Battery-free slotted patch antenna sensor for wireless strain and crack monitoring. Smart Structures and Systems, 2016, 18, 1217-1231.	1.9	18
24	Dual-Band Antennas for Frequency-Doubler-Based Wireless Strain Sensing. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 216-219.	2.4	17
25	Wireless strain and crack sensing using a folded patch antenna. , 2012, , .		17
26	Survey and Introduction to the Focused Section on Mechatronics for Sustainable and Resilient Civil Infrastructure. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1637-1646.	3.7	17
27	A double homotopy approach for decentralized Hâˇž control of civil structures. Structural Control and Health Monitoring, 2014, 21, 269-281.	1.9	17
28	Thermally Stable Wireless Patch Antenna Sensor for Strain and Crack Sensing. Sensors, 2020, 20, 3835.	2.1	16
29	A local excitation and measurement approach for decentralized damage detection using transmissibility functions. Structural Control and Health Monitoring, 2016, 23, 487-502.	1.9	14
30	New SOCP relaxation and branching rule for bipartite bilinear programs. Optimization and Engineering, 2019, 20, 307-336.	1.3	14
31	Wireless sensing with smart skins. , 2011, , .		11
32	A wireless sensor network for monitoring the structural health of a football stadium. , 2015, , .		11
33	Model-updating with experimental frequency response function considering general damping. Advances in Structural Engineering, 2018, 21, 82-92.	1.2	11
34	An intelligent stand-alone ultrasonic device for monitoring local structural damage: implementation and preliminary experiments. Smart Materials and Structures, 2011, 20, 015022.	1.8	9
35	Model updating using sum of squares (SOS) optimization to minimize modal dynamic residuals. Structural Control and Health Monitoring, 2018, 25, e2263.	1.9	9
36	Simultaneous input-state estimation with direct feedthrough based on a unifying MMSE framework with experimental validation. Mechanical Systems and Signal Processing, 2021, 147, 107083.	4.4	9

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37	Design and performance validation of a compact wireless ultrasonic device for localized damage detection. Advances in Structural Engineering, 2016, 19, 270-282.	1.2	8
38	Formulation and application of SMU: An open-source MATLAB package for structural model updating. Advances in Structural Engineering, 2022, 25, 698-715.	1.2	8
39	Vibration testing of a steel girder bridge using cabled and wireless sensors. Frontiers of Architecture and Civil Engineering in China, 2011, 5, 249-258.	0.4	7
40	A Slotted Patch Antenna for Wireless Strain Sensing. , 2014, , .		7
41	Finite element model updating of an 18-story structure using branch-and-bound algorithm with epsilon-constraint. Journal of Civil Structural Health Monitoring, 2021, 11, 575-592.	2.0	7
42	Modal property difference formulations and optimization algorithm comparison towards FE model updating. , 2018, , .		7
43	Time-delayed decentralized H<inf>∞</inf> controller design for civil structures: A homotopy method through linear matrix inequalities. , 2009, , .		6
44	A prototype mobile sensor network for structural health monitoring. Proceedings of SPIE, 2009, , .	0.8	6
45	Survey on robotics and automation technologies for civil infrastructure. Smart Structures and Systems, 2014, 13, 891-899.	1.9	6
46	Feasibility of Output-Only Modal Identification Using Wireless Sensor Network: A Quantitative Field Experimental Study. International Journal of Distributed Sensor Networks, 2012, 8, 560161.	1.3	5
47	Detection and localization of debonding beneath concrete pavement using transmissibility function analysis. Mechanical Systems and Signal Processing, 2021, 159, 107802.	4.4	5
48	Embedded transmissibility function analysis for damage detection in a mobile sensor network. , 2010, , .		5
49	Intelligent Sensors with Application to the Identification of Structural Modal Parameters and Steel Cable Forces. , 2008, , .		4
50	Introduction to the focused section on intelligent robotics for civil infrastructure. International Journal of Intelligent Robotics and Applications, 2017, 1, 239-242.	1.6	4
51	Sparse Sum-of-Squares Optimization for Model Updating Through Minimization of Modal Dynamic Residuals. Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems, 2019, 2, 011005-011005-9.	0.7	4
52	Modal dynamic residual-based model updating through regularized semidefinite programming with facial reduction. Mechanical Systems and Signal Processing, 2020, 143, 106792.	4.4	4
53	Substructure Model Updating Through Iterative Convex Optimization. , 2012, , .		3
54	Passive Frequency Doubling Antenna Sensor for Wireless Strain Sensing. , 2012, , .		3

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55	Field testing of *Martlet* wireless sensing system on an in-service pre-stressed concrete highway bridge. Proceedings of SPIE, 2016, , .	0.8	3
56	Finite Element Model Updating of a Steel Pedestrian Bridge Model. , 2019, , .		3
57	SMU â€" an open-source MATLAB package for structural model updating. , 2021, , 1621-1628.		3
58	Robotic Sensing and Systems for Smart Cities. Sensors, 2021, 21, 2963.	2.1	3
59	Decentralized wireless structural sensing and control with multiple system architectures operating at different sampling frequencies. Proceedings of SPIE, 2008, , .	0.8	2
60	Strain Sensing through a Passive Wireless Sensor Array. , 2012, , .		2
61	Antenna-based &#x201C;smart skin&#x201D; sensors for sustainable, wireless sensor networks. , 2012, , .		2
62	Mobile Sensor Networks: A New Approach for Structural Health Monitoring. , 2010, , .		1
63	Patch antenna sensor rosettes for surface strain measurement. Proceedings of the Institution of Civil Engineers - Smart Infrastructure and Construction, 2017, 170, 39-49.	1.1	1
64	Ultrasonic Thickness Measurement Using the Martlet Wireless Sensing System. , 2021, , .		1
65	Input Estimation of a Full-Scale Concrete Frame Structure with Experimental Measurements. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 117-125.	0.3	1
66	Constrained unscented Kalman filter for parameter identification of structural systems. Structural Control and Health Monitoring, 2022, 29, .	1.9	1
67	AN INTELLIGENT STAND-ALONE ULTRASONIC DEVICE FOR MONITORING LOCAL DAMAGE GROWTH IN CIVIL STRUCTURES. , 2010, , .		0
68	Multi-subnet wireless sensing feedback for decentralized ℋ<inf>2</inf> control with information overlapping. , 2011, , .		0
69	Compressive strain measurement using RFID patch antenna sensors. Proceedings of SPIE, 2014, , .	0.8	0
70	An Eigenvalue Perturbation Solution for the Multi-Physics Simulation of Antenna Strain Sensors. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2017, , 1-1.	1.4	0
71	The Design Challenges and Innovations in 400m High CRC Headquarter Tower. , 2016, , .		0
72	Explore the Keynote of Structure Design on Super High-rise Building in Guangzhouâ€" The application of Total Design. , 2016, , .		0

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73	Strain sensing rosettes using passive patch antennas. , 2018, , .		0
74	High-g Shock Acceleration Measurement Using Martlet Wireless Sensing System. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 23-31.	0.3	0