Shirley J Dyke

List of Publications by Year
in descending order

89 papers	3,273 citations	218677 26 h-index	155660 55 g-index
91 all docs	91 docs citations	91 times ranked	2064 citing authors

#	ARTICLE	IF	CITATIONS
1	Automated image localization to support rapid building reconnaissance in a large-scale area. Computer-Aided Civil and Infrastructure Engineering, 2023, 38, 3-25.	9.8	2
2	Similarity learning to enable building searches in post-event image data. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 261-275.	9.8	6
3	An adaptive sliding mode control system and its application to real-time hybrid simulation. Structural Control and Health Monitoring, 2022, 29, e2851.	4.0	8
4	A Modified Fractional-Order Derivative Zener Model for Rubber-Like Devices for Structural Control. Journal of Engineering Mechanics - ASCE, 2022, 148, .	2.9	19
5	Automated Graffiti Detection: A Novel Approach to Maintaining Historical Architecture in Communities. Applied Sciences (Switzerland), 2022, 12, 2983.	2.5	2
6	Various damper forces and dynamic excitation nonparametric identification with a double Chebyshev polynomial using limited fused measurements. Measurement: Journal of the International Measurement Confederation, 2022, 193, 110940.	5.0	5
7	Robust control of vortex-induced vibration in flexible bridges using an active tuned mass damper. Structural Control and Health Monitoring, 2022, 29, .	4.0	8
8	Preliminary approach to assess the seismic hazard on a lunar site. Icarus, 2022, 383, 115056.	2.5	3
9	Sliding mode control design for the benchmark problem in real-time hybrid simulation. Mechanical Systems and Signal Processing, 2021, 151, 107364.	8.0	16
10	Multi-rate Real Time Hybrid Simulation operated on a flexible LabVIEW real-time platform. Engineering Structures, 2021, 239, 112308.	5.3	10
11	Database Enabled Rapid Seismic Vulnerability Assessment of Bridges. Transportation Research Record, 2021, 2675, 1106-1120.	1.9	2
12	Investigating Coupled Train-Bridge-Bearing System Under Earthquake- and Train-Induced Excitations. Journal of Vibration and Acoustics, Transactions of the ASME, 2021, 143, .	1.6	7
13	Lunar lava tubes: Morphology to structural stability. Icarus, 2020, 338, 113442.	2.5	25
14	Benchmark control problem for real-time hybrid simulation. Mechanical Systems and Signal Processing, 2020, 135, 106381.	8.0	60
15	A resilience-based method for prioritizing post-event building inspections. Natural Hazards, 2020, 100, 877-896.	3.4	10
16	Experimental verification of an accessible geographically distributed real-time hybrid simulation platform. Structural Control and Health Monitoring, 2020, 27, e2483.	4.0	7
17	Fractional Differential Equation Bearing Models for Base-Isolated Buildings: Framework Development. Journal of Structural Engineering, 2020, 146, .	3.4	12
18	Identification of an experimental nonlinear energy sink device using the unscented Kalman filter. Mechanical Systems and Signal Processing, 2020, 136, 106512.	8.0	9

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19	A Reflective Framework for Performance Management (REFORM) of Real-Time Hybrid Simulation. Frontiers in Built Environment, 2020, 6, 159-171.	2.3	2
20	Efficient seismic fragility functions through sequential selection. Structural Safety, 2020, 87, 101977.	5.3	2
21	Editorial: Special issue on the real-time hybrid simulation benchmark problem. Mechanical Systems and Signal Processing, 2020, 142, 106804.	8.0	3
22	Automated Indoor Image Localization to Support a Post-Event Building Assessment. Sensors, 2020, 20, 1610.	3.8	5
23	A Self‐tuning Robust Control System for nonlinear real‐time hybrid simulation. Earthquake Engineering and Structural Dynamics, 2020, 49, 695-715.	4.4	11
24	Towards fully automated post-event data collection and analysis: Pre-event and post-event information fusion. Engineering Structures, 2020, 208, 109884.	5.3	20
25	CrowdLIM: Crowdsourcing to enable lifecycle infrastructure management. Computers in Industry, 2020, 115, 103185.	9.9	8
26	Global sensitivity analysis for the design of nonlinear identification experiments. Nonlinear Dynamics, 2019, 98, 375-394.	5.2	9
27	Automated Recovery of Structural Drawing Images Collected from Postdisaster Reconnaissance. Journal of Computing in Civil Engineering, 2019, 33, .	4.7	5
28	Postevent Reconnaissance Image Documentation Using Automated Classification. Journal of Performance of Constructed Facilities, 2019, 33, .	2.0	25
29	Automated region-of-interest localization and classification for vision-based visual assessment of civil infrastructure. Structural Health Monitoring, 2019, 18, 675-689.	7.5	58
30	Evaluation of Energy and Power Flow in a Nonlinear Energy Sink Attached to a Linear Primary Oscillator. Journal of Vibration and Acoustics, Transactions of the ASME, 2019, 141, .	1.6	11
31	Evaluación del desempeño de un amortiguador de masa sintonizado no lineal mediante simulaciones híbridas en tiempo real. Inge Cuc, 2019, 15, 11-22.	0.2	2
32	Experimental Verification of a Substructure-Based Model to Describe Pedestrian–Bridge Interaction. Journal of Bridge Engineering, 2018, 23, .	2.9	10
33	Servo-hydraulic actuator in controllable canonical form: Identification and experimental validation. Mechanical Systems and Signal Processing, 2018, 100, 398-414.	8.0	32
34	Visual data classification in post-event building reconnaissance. Engineering Structures, 2018, 155, 16-24.	5.3	87
35	Parametric model of servo-hydraulic actuator coupled with a nonlinear system: Experimental validation. Mechanical Systems and Signal Processing, 2018, 104, 663-672.	8.0	20
36	Computer-Aided Approach for Rapid Post-Event Visual Evaluation of a Building Façade. Sensors, 2018, 18, 3017.	3.8	31

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37	Real time hybrid simulation with online model updating: An analysis of accuracy. Mechanical Systems and Signal Processing, 2017, 84, 223-240.	8.0	30
38	Development and Verification of Distributed Real-Time Hybrid Simulation Methods. Journal of Computing in Civil Engineering, 2017, 31, .	4.7	14
39	Adaptive multi‐rate interface: development and experimental verification for real‐time hybrid simulation. Earthquake Engineering and Structural Dynamics, 2016, 45, 1411-1425.	4.4	11
40	Benchmark problem in active structural control with wireless sensor network. Structural Control and Health Monitoring, 2016, 23, 20-34.	4.0	22
41	Acceleration‐Based Automated Vehicle Classification on Mobile Bridges. Computer-Aided Civil and Infrastructure Engineering, 2016, 31, 813-825.	9.8	5
42	Safety and Stability of Light-Rail Train Running on Multispan Bridges with Deformation. Journal of Bridge Engineering, 2016, 21, .	2.9	26
43	Vision‐Based Automated Crack Detection for Bridge Inspection. Computer-Aided Civil and Infrastructure Engineering, 2015, 30, 759-770.	9.8	347
44	Robust integrated actuator control: experimental verification and real‐time hybrid‐simulation implementation. Earthquake Engineering and Structural Dynamics, 2015, 44, 441-460.	4.4	69
45	Computational Tool for Real-Time Hybrid Simulation of Seismically Excited Steel Frame Structures. Journal of Computing in Civil Engineering, 2015, 29, .	4.7	21
46	Experimental implementation of predictive indicators for configuring a real-time hybrid simulation. Engineering Structures, 2015, 101, 427-438.	5.3	15
47	Model-free nonlinear restoring force identification for SMA dampers with double Chebyshev polynomials: approach and validation. Nonlinear Dynamics, 2015, 82, 1507-1522.	5.2	16
48	Large-Scale Real-Time Hybrid Simulation for Evaluation of Advanced Damping System Performance. Journal of Structural Engineering, 2015, 141, .	3.4	51
49	Enabling role of hybrid simulation across NEES in advancing earthquake engineering. Smart Structures and Systems, 2015, 15, 913-929.	1.9	14
50	Experimental Validation of a Generalized Procedure for MDOF Real-Time Hybrid Simulation. Journal of Engineering Mechanics - ASCE, 2014, 140, .	2.9	16
51	Seismic Fragility Relationships of a Cable-Stayed Bridge Equipped with Response Modification Systems. Journal of Bridge Engineering, 2014, 19, .	2.9	18
52	Establishing a predictive performance indicator for real‐time hybrid simulation. Earthquake Engineering and Structural Dynamics, 2014, 43, 2299-2318.	4.4	39
53	Performance Validations of Semiactive Controllers on Large-Scale Moment-Resisting Frame Equipped with 200-kN MR Damper Using Real-Time Hybrid Simulations. Journal of Structural Engineering, 2014, 140, .	3.4	25
54	Parametric identification of a servo-hydraulic actuator for real-time hybrid simulation. Mechanical Systems and Signal Processing, 2014, 48, 260-273.	8.0	40

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55	Establishing a stability switch criterion for effective implementation of real-time hybrid simulation. Smart Structures and Systems, 2014, 14, 1221-1245.	1.9	31
56	Investigation of uncertainties associated with actuation modeling error and sensor noise on real time hybrid simulation performance. , 2013, , .		2
57	Comparative Studies of Semiactive Control Strategies for MR Dampers: Pure Simulation and Real-Time Hybrid Tests. Journal of Structural Engineering, 2013, 139, 1237-1248.	3.4	57
58	A novel integrated compensation method for actuator dynamics in real-time hybrid structural testing. Structural Control and Health Monitoring, 2013, 20, 1057-1080.	4.0	19
59	Real time hybrid simulation: from dynamic system, motion control to experimental error. Earthquake Engineering and Structural Dynamics, 2013, 42, 815-832.	4.4	92
60	Realistic case studies of wireless structural control. , 2013, , .		38
61	A holistic approach to decentralized structural damage localization using wireless sensor networks. Computer Communications, 2012, 36, 29-41.	5.1	38
62	Structural parameters and dynamic loading identification from incomplete measurements: Approach and validation. Mechanical Systems and Signal Processing, 2012, 28, 244-257.	8.0	79
63	Experimental validation of a damage detection approach on a full-scale highway sign support truss. Mechanical Systems and Signal Processing, 2012, 28, 195-211.	8.0	16
64	Evaluating the performance of distributed approaches for modal identification. , 2011, , .		6
65	Application of pseudospectral method in stochastic optimal control of nonlinear structural systems. , 2011, , .		0
66	Application of nonlinear observers in hysteretic model updating. Proceedings of SPIE, 2010, , .	0.8	4
67	A parameter subset selection method using residual force vector for detecting multiple damage locations. Structural Control and Health Monitoring, 2010, 17, 48-67.	4.0	23
68	A general numerical solution to optimal nonlinear stochastic structural control problem. , 2010, , .		1
69	Structural damage detection robust against time synchronization errors. Smart Materials and Structures, 2010, 19, 065001.	3.5	16
70	Modeling and identification of a class of MR fluid foam dampers. Smart Structures and Systems, 2010, 6, 101-113.	1.9	7
71	Structural damage localization with tolerance to large time synchronization errors in WSNs. , 2009, , .		0
72	Modal Identification through Ambient Vibration: Comparative Study. Journal of Engineering Mechanics - ASCE, 2009, 135, 759-770.	2.9	76

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73	Discrete-Time ARMAv Model-Based Optimal Sensor Placement. AIP Conference Proceedings, 2008, , .	0.4	0
74	Modeling and identification of the hysteretic dynamics of an MR actuator for its application to semiactive control of flexible structures. , 2007, , .		4
75	Experimental Identification of a Shear-Mode MR Damper and Numerical Evaluation of Hysteretic Models. , 2007, , 1469.		2
76	Modeling and identification of a shear mode magnetorheological damper. Smart Materials and Structures, 2007, 16, 605-616.	3.5	71
77	Control of an elastic continuum when traversed by a moving oscillator. Structural Control and Health Monitoring, 2007, 14, 197-217.	4.0	10
78	A Comparative Study of the Base Isolation Benchmark Problem Using H2/LQG and Smart Dampers. , 2006, , 1.		0
79	Damage Detection Accommodating Varying Environmental Conditions. Structural Health Monitoring, 2006, 5, 155-172.	7.5	63
80	Experimental validation of structural health monitoring for flexible bridge structures. Structural Control and Health Monitoring, 2005, 12, 425-443.	4.0	22
81	Response Control of Full-Scale Irregular Buildings Using Magnetorheological Dampers. Journal of Structural Engineering, 2005, 131, 734-742.	3.4	65
82	Integrated Device Placement and Control Design in Civil Structures Using Genetic Algorithms. Journal of Structural Engineering, 2005, 131, 1489-1496.	3.4	40
83	Seismic Response of Multiple Span Steel Bridges in Central and Southeastern United States. I: As Built. Journal of Bridge Engineering, 2004, 9, 464-472.	2.9	24
84	Control-oriented system identification using ERA. Structural Control and Health Monitoring, 2004, 11, 311-326.	4.0	13
85	Seismic Control of a Nonlinear Benchmark Building Using Smart Dampers. Journal of Engineering Mechanics - ASCE, 2004, 130, 386-392.	2.9	158
86	Natural Excitation Technique and Eigensystem Realization Algorithm for Phase I of the IASC-ASCE Benchmark Problem: Simulated Data. Journal of Engineering Mechanics - ASCE, 2004, 130, 49-60.	2.9	212
87	Experimental verification of torsional response control of asymmetric buildings using MR dampers. Earthquake Engineering and Structural Dynamics, 2003, 32, 2085-2105.	4.4	46
88	Experimental Verification of Multiinput Seismic Control Strategies for Smart Dampers. Journal of Engineering Mechanics - ASCE, 2001, 127, 1152-1164.	2.9	172
89	Semiactive Control Strategies for MR Dampers: Comparative Study. Journal of Engineering Mechanics - ASCE, 2000, 126, 795-803.	2.9	534