Satish Nagarajaiah

List of Publications by Year
in descending order

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219 papers	11,286 citations	29994 54 h-index	35952 97 g-index
225 all docs	225 docs citations	225 times ranked	5267 citing authors

#	Article	IF	Citations
1	State of the Art of Structural Control. Journal of Structural Engineering, 2003, 129, 845-856.	1.7	1,131
2	Nanotube film based on single-wall carbon nanotubes for strain sensing. Nanotechnology, 2004, 15, 379-382.	1.3	496
3	Review of Bridge Structural Health Monitoring Aided by Big Data and Artificial Intelligence: From Condition Assessment to Damage Detection. Journal of Structural Engineering, 2020, 146, .	1.7	324
4	Flexible Piezoelectric ZnOâ€“Paper Nanocomposite Strain Sensor. Small, 2010, 6, 1641-1646.	5.2	318
5	Negative Stiffness Device for Seismic Protection of Structures. Journal of Structural Engineering, 2013, 139, 1124-1133.	1.7	245
6	Nonlinear Dynamic Analysis of 3â€Dâ€Baseâ€Isolated Structures. Journal of Structural Engineering, 1991, 117, 2035-2054.	1.7	222
7	Adaptive passive, semiactive, smart tuned mass dampers: identification and control using empirical mode decomposition, hilbert transform, and short-term fourier transform. Structural Control and Health Monitoring, 2009, 16, 800-841.	1.9	194
8	Adaptive Negative Stiffness: New Structural Modification Approach for Seismic Protection. Journal of Structural Engineering, 2013, 139, 1112-1123.	1.7	185
9	Smart base-isolated benchmark building. Part I: problem definition. Structural Control and Health Monitoring, 2006, 13, 573-588.	1.9	184
10	Response of Base-Isolated USC Hospital Building in Northridge Earthquake. Journal of Structural Engineering, 2000, 126, 1177-1186.	1.7	182
11	Carbon Nanotube Film Sensors. Advanced Materials, 2004, 16, 640-643.	11.1	181
12	Output only modal identification and structural damage detection using time frequency & wavelet techniques. Earthquake Engineering and Engineering Vibration, 2009, 8, 583-605.	1.1	179
13	Short time Fourier transform algorithm for wind response control of buildings with variable stiffness TMD. Engineering Structures, 2005, 27, 431-441.	2.6	178
14	Structures with Semiactive Variable Stiffness Single/Multiple Tuned Mass Dampers. Journal of Structural Engineering, 2007, 133, 67-77.	1.7	156
15	Output-only modal identification with limited sensors using sparse component analysis. Journal of Sound and Vibration, 2013, 332, 4741-4765.	2.1	144
16	Control of flapwise vibrations in wind turbine blades using semi-active tuned mass dampers. Structural Control and Health Monitoring, 2011, 18, 840-851.	1.9	136
17	Wind Response Control of Building with Variable Stiffness Tuned Mass Damper Using Empirical Mode Decomposition/Hilbert Transform. Journal of Engineering Mechanics - ASCE, 2004, 130, 451-458.	1.6	133
18	Smart base-isolated benchmark building. Part II: phase I sample controllers for linear isolation systems. Structural Control and Health Monitoring, 2006, 13, 589-604.	1.9	132

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19	Stability of Elastomeric Isolation Bearings: Experimental Study. Journal of Structural Engineering, 2002, 128, 3-11.	1.7	124
20	Seismic response control of smart sliding isolated buildings using variable stiffness systems: an experimental and numerical study. Earthquake Engineering and Structural Dynamics, 2006, 35, 177-197.	2.5	119
21	Blind identification of damage in time-varying systems using independent component analysis with wavelet transform. Mechanical Systems and Signal Processing, 2014, 47, 3-20.	4.4	113
22	Stability of Elastomeric Seismic Isolation Bearings. Journal of Structural Engineering, 1999, 125, 946-954.	1.7	109
23	Time-Frequency Blind Source Separation Using Independent Component Analysis for Output-Only Modal Identification of Highly Damped Structures. Journal of Structural Engineering, 2013, 139, 1780-1793.	1.7	109
24	A novel unscented Kalman filter for recursive state-input-system identification of nonlinear systems. Mechanical Systems and Signal Processing, 2019, 127, 120-135.	4.4	103
25	Cable with discrete negative stiffness device and viscous damper: passive realization and general characteristics. Smart Structures and Systems, 2015, 15, 627-643.	1.9	102
26	Study on semi-active tuned mass damper with variable damping and stiffness under seismic excitations. Structural Control and Health Monitoring, 2014, 21, 890-906.	1.9	99
27	Base-Isolated FCC Building: Impact Response in Northridge Earthquake. Journal of Structural Engineering, 2001, 127, 1063-1075.	1.7	98
28	Blind identification of full-field vibration modes of output-only structures from uniformly-sampled, possibly temporally-aliased (sub-Nyquist), video measurements. Journal of Sound and Vibration, 2017, 390, 232-256.	2.1	96
29	Control of Slidingâ€Isolated Bridge with Absolute Acceleration Feedback. Journal of Engineering Mechanics - ASCE, 1993, 119, 2317-2332.	1.6	93
30	Structural damage identification via a combination of blind feature extraction and sparse representation classification. Mechanical Systems and Signal Processing, 2014, 45, 1-23.	4.4	93
31	Semi-active control of sliding isolated bridges using MR dampers: an experimental and numerical study. Earthquake Engineering and Structural Dynamics, 2005, 34, 965-983.	2.5	91
32	Modeling and harnessing sparse and low-rank data structure: a new paradigm for structural dynamics, identification, damage detection, and health monitoring. Structural Control and Health Monitoring, 2017, 24, e1851.	1.9	88
33	Vibration-based structural health monitoring under changing environmental conditions using Kalman filtering. Mechanical Systems and Signal Processing, 2019, 117, 1-15.	4.4	88
34	Benchmark structural control problem for a seismically excited highway bridge-Part I: Phase I Problem definition. Structural Control and Health Monitoring, 2009, 16, 509-529.	1.9	87
35	Seismic protection of SDOF systems with a negative stiffness amplifying damper. Engineering Structures, 2019, 190, 128-141.	2.6	87
36	Output-only modal identification by compressed sensing: Non-uniform low-rate random sampling. Mechanical Systems and Signal Processing, 2015, 56-57, 15-34.	4.4	86

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37	A STFT semiactive controller for base isolated buildings with variable stiffness isolation systems. Engineering Structures, 2005, 27, 514-523.	2.6	84
38	Semi-active control of walking-induced vibrations in bridges using adaptive tuned mass damper considering human-structure-interaction. Engineering Structures, 2021, 244, 112743.	2.6	79
39	Harnessing data structure for recovery of randomly missing structural vibration responses time history: Sparse representation versus low-rank structure. Mechanical Systems and Signal Processing, 2016, 74, 165-182.	4.4	77
40	Sparse structural system identification method for nonlinear dynamic systems with hysteresis/inelastic behavior. Mechanical Systems and Signal Processing, 2019, 117, 813-842.	4.4	76
41	CNN and Convolutional Autoencoder (CAE) based real-time sensor fault detection, localization, and correction. Mechanical Systems and Signal Processing, 2022, 169, 108723.	4.4	76
42	Online Identification of Linear Time-varying Stiffness of Structural Systems by Wavelet Analysis. Structural Health Monitoring, 2008, 7, 21-36.	4.3	75
43	Strain sensing using a multiwalled carbon nanotube film. Journal of Strain Analysis for Engineering Design, 2009, 44, 555-562.	1.0	75
44	Blind modal identification of outputâ€only structures in timeâ€domain based on complexity pursuit. Earthquake Engineering and Structural Dynamics, 2013, 42, 1885-1905.	2.5	73
45	Study on adaptiveâ€passive eddy current pendulum tuned mass damper for windâ€induced vibration control. Structural Design of Tall and Special Buildings, 2020, 29, e1793.	0.9	71
46	Simulated Bilinear-Elastic Behavior in a SDOF Elastic Structure Using Negative Stiffness Device: Experimental and Analytical Study. Journal of Structural Engineering, 2014, 140, .	1.7	68
47	Real-Time Output-Only Identification of Time-Varying Cable Tension from Accelerations via Complexity Pursuit. Journal of Structural Engineering, 2016, 142, .	1.7	68
48	Negative Stiffness Device for Seismic Protection of Structures: Shake Table Testing of a Seismically Isolated Structure. Journal of Structural Engineering, 2016, 142, .	1.7	65
49	Measurement of full-field displacement time history of a vibrating continuous edge from video. Mechanical Systems and Signal Processing, 2020, 144, 106847.	4.4	65
50	Torsion in Baseâ€Isolated Structures with Elastomeric Isolation Systems. Journal of Structural Engineering, 1993, 119, 2932-2951.	1.7	63
51	Negative stiffness device for seismic protection of smart base isolated benchmark building. Structural Control and Health Monitoring, 2017, 24, e1968.	1.9	63
52	An offline approach for output-only Bayesian identification of stochastic nonlinear systems using unscented Kalman filtering. Journal of Sound and Vibration, 2017, 397, 222-240.	2.1	63
53	Structural identification with physics-informed neural ordinary differential equations. Journal of Sound and Vibration, 2021, 508, 116196.	2.1	63
54	Experimental Study of Sliding Base-Isolated Buildings with Magnetorheological Dampers in Near-Fault Earthquakes. Journal of Structural Engineering, 2005, 131, 1025-1034.	1.7	61

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55	A wavelet-based time-varying adaptive LQR algorithm for structural control. Engineering Structures, 2008, 30, 2470-2477.	2.6	58
56	Vision and Deep Learning-Based Algorithms to Detect and Quantify Cracks on Concrete Surfaces from UAV Videos. Sensors, 2020, 20, 6299.	2.1	58
57	Torsional Coupling in Sliding Baseâ€Isolated Structures. Journal of Structural Engineering, 1993, 119, 130-149.	1.7	57
58	Hybrid Control of Structures Using Fuzzy Logic. Computer-Aided Civil and Infrastructure Engineering, 1996, 11, 1-17.	6.3	57
59	The strain sensing and thermalâ€“mechanical behavior of flexible multi-walled carbon nanotube/polystyrene composite films. Carbon, 2011, 49, 3928-3936.	5.4	57
60	Smart base-isolated benchmark building part IV: Phase II sample controllers for nonlinear isolation systems. Structural Control and Health Monitoring, 2008, 15, 657-672.	1.9	56
61	Behavior Analysis and Early Warning of Girder Deflections of a Steel-Truss Arch Railway Bridge under the Effects of Temperature and Trains: Case Study. Journal of Bridge Engineering, 2019, 24, .	1.4	55
62	On the effectiveness of principal component analysis for decoupling structural damage and environmental effects in bridge structures. Journal of Sound and Vibration, 2019, 457, 280-298.	2.1	53
63	Data-driven semi-supervised and supervised learning algorithms for health monitoring of pipes. Mechanical Systems and Signal Processing, 2019, 131, 524-537.	4.4	53
64	Performance Evaluation of Negative Stiffness Devices for Seismic Response Control of Bridge Structures via Experimental Shake Table Tests. Journal of Earthquake Engineering, 2015, 19, 249-276.	1.4	52
65	Semi-active control of vibrations of spar type floating offshore wind turbines. Smart Structures and Systems, 2016, 18, 683-705.	1.9	52
66	Strain Paint: Noncontact Strain Measurement Using Single-Walled Carbon Nanotube Composite Coatings. Nano Letters, 2012, 12, 3497-3500.	4.5	51
67	A unified analysis of negative stiffness dampers and inerter-based absorbers for multimode cable vibration control. Journal of Sound and Vibration, 2021, 494, 115814.	2.1	51
68	Computer visionâ€based realâ€time cable tension estimation in Dubrovnik cableâ€stayed bridge using moving handheld video camera. Structural Control and Health Monitoring, 2021, 28, e2713.	1.9	51
69	Attenuation of a linear oscillator using a nonlinear and a semi-active tuned mass damper in series. Journal of Sound and Vibration, 2013, 332, 154-166.	2.1	50
70	A study on semi-active Tuned Liquid Column Dampers (sTLCDs) for structural response reduction under random excitations. Journal of Sound and Vibration, 2016, 362, 1-15.	2.1	50
71	Dynamic Characteristics and Responses of Damped Outrigger Tall Buildings Using Negative Stiffness. Journal of Structural Engineering, 2020, 146, .	1.7	49
72	Benchmark structural control problem for a seismically excited highway bridge-Part III: Phase II Sample controller for the fully base-isolated case. Structural Control and Health Monitoring, 2009, 16, 549-563.	1.9	47

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73	Blind denoising of structural vibration responses with outliers via principal component pursuit. Structural Control and Health Monitoring, 2014, 21, 962-978.	1.9	47
74	Robust data transmission and recovery of images by compressed sensing for structural health diagnosis. Structural Control and Health Monitoring, 2017, 24, e1856.	1.9	45
75	Real-Time Structural Damage Monitoring by Input Error Function. AIAA Journal, 2005, 43, 1808-1814.	1.5	44
76	Smart base isolated buildings with variable friction systems:Hâˆž controller and SAIVF device. Earthquake Engineering and Structural Dynamics, 2006, 35, 921-942.	2.5	44
77	Apparent Weakening in SDOF Yielding Structures Using a Negative Stiffness Device: Experimental and Analytical Study. Journal of Structural Engineering, 2015, 141, .	1.7	44
78	Numerical simulations of a highway bridge structure employing passive negative stiffness device for seismic protection. Earthquake Engineering and Structural Dynamics, 2015, 44, 973-995.	2.5	44
79	Actuator Failure Detection Through Interaction Matrix Formulation. Journal of Guidance, Control, and Dynamics, 2005, 28, 895-901.	1.6	43
80	Seismic control of smart base isolated buildings with new semiactive variable damper. Earthquake Engineering and Structural Dynamics, 2007, 36, 729-749.	2.5	43
81	Simplified optimal design of MDOF structures with negative stiffness amplifying dampers based on effective damping. Structural Design of Tall and Special Buildings, 2019, 28, e1664.	0.9	43
82	Identification of full-field dynamic modes using continuous displacement response estimated from vibrating edge video. Journal of Sound and Vibration, 2020, 489, 115657.	2.1	43
83	Structural monitoring and identification of civil infrastructure in the United States. Structural Monitoring and Maintenance, 2016, 3, 51-69.	1.7	43
84	Hardening DÃ¼ffing oscillator attenuation using a nonlinear TMD, a semi-active TMD and multiple TMD. Journal of Sound and Vibration, 2013, 332, 674-686.	2.1	42
85	Experimental investigation of vibration attenuation using nonlinear tuned mass damper and pendulum tuned mass damper in parallel. Nonlinear Dynamics, 2014, 78, 2699-2715.	2.7	42
86	Family of smart tuned mass dampers with variable frequency under harmonic excitations and ground motions: closed-form evaluation. Smart Structures and Systems, 2014, 13, 319-341.	1.9	42
87	Performance Comparison between Passive Negative-Stiffness Dampers and Active Control in Cable Vibration Mitigation. Journal of Bridge Engineering, 2017, 22, .	1.4	41
88	Detecting Sensor Failure via Decoupled Error Function and Inverse Inputâ€“Output Model. Journal of Engineering Mechanics - ASCE, 2007, 133, 1222-1228.	1.6	40
89	Bayesian structural identification of a hysteretic negative stiffness earthquake protection system using unscented Kalman filtering. Structural Control and Health Monitoring, 2018, 25, e2203.	1.9	40
90	Linear-Matrix-Inequality-Based Robust Fault Detection and Isolation Using the Eigenstructure Assignment Method. Journal of Guidance, Control, and Dynamics, 2007, 30, 1831-1835.	1.6	39

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91	Cable vibration control with both lateral and rotational dampers attached at an intermediate location. Journal of Sound and Vibration, 2016, 377, 38-57.	2.1	39
92	Dynamic Imaging: Real-Time Detection of Local Structural Damage with Blind Separation of Low-Rank Background and Sparse Innovation. Journal of Structural Engineering, 2016, 142, .	1.7	39
93	Multi-objective optimal design and seismic performance of negative stiffness damped outrigger structures considering damping cost. Engineering Structures, 2021, 229, 111615.	2.6	39
94	Frequency-dependency/independency analysis of damping magnification effect provided by tuned inerter absorber and negative stiffness amplifying damper considering soil-structure interaction. Mechanical Systems and Signal Processing, 2022, 172, 108965.	4.4	38
95	Time segmented least squares identification of base isolated buildings. Soil Dynamics and Earthquake Engineering, 2004, 24, 577-586.	1.9	37
96	Structural Health Monitoring using ARMarkov Observers. Journal of Intelligent Material Systems and Structures, 2006, 17, 469-481.	1.4	35
97	Fault-tolerant adaptive control of nonlinear base-isolated buildings using EMRAN. Engineering Structures, 2010, 32, 2477-2487.	2.6	35
98	Development of a rotation-based negative stiffness device for seismic protection of structures. JVC/Journal of Vibration and Control, 2017, 23, 853-867.	1.5	35
99	Bayesian seismic strong-motion response and damage estimation with application to a full-scale seven story shear wall structure. Engineering Structures, 2019, 186, 146-160.	2.6	35
100	Effectiveness of Variable Stiffness Systems in Base-isolated Bridges Subjected to Near-fault Earthquakes: An Experimental and Analytical Study. Journal of Intelligent Material Systems and Structures, 2005, 16, 743-756.	1.4	33
101	Optimal design of supplemental negative stiffness damped outrigger system for high-rise buildings resisting multi-hazard of winds and earthquakes. Journal of Wind Engineering and Industrial Aerodynamics, 2021, 218, 104761.	1.7	32
102	Experimental Shake Table Testing of an Adaptive Passive Negative Stiffness Device within a Highway Bridge Model. Earthquake Spectra, 2015, 31, 2163-2194.	1.6	31
103	Experimental Study of Sliding Isolated Structures with Uplift Restraint. Journal of Structural Engineering, 1992, 118, 1666-1682.	1.7	30
104	Semiâ€supervised structural linear/nonlinear damage detection and characterization using sparse identification. Structural Control and Health Monitoring, 2019, 26, e2306.	1.9	30
105	Spatiotemporal compressive sensing of full-field Lagrangian continuous displacement response from optical flow of edge: Identification of full-field dynamic modes. Mechanical Systems and Signal Processing, 2022, 164, 108232.	4.4	30
106	Sparsity-based approaches for damage detection in plates. Mechanical Systems and Signal Processing, 2019, 117, 333-346.	4.4	29
107	Apparent-weakening by adaptive passive stiffness shaping along the height of multistory building using negative stiffness devices and dampers for seismic protection. Engineering Structures, 2020, 220, 110754.	2.6	29
108	Structural control benchmark problem: Phase II-Nonlinear smart base-isolated building subjected to near-fault earthquakes. Structural Control and Health Monitoring, 2008, 15, 653-656.	1.9	28

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109	Nonlinear structural control using integrated DDA/ISMP and semi-active tuned mass damper. Engineering Structures, 2019, 181, 589-604.	2.6	28
110	Full-field, high-spatial-resolution detection of local structural damage from low-resolution random strain field measurements. Journal of Sound and Vibration, 2017, 399, 75-85.	2.1	27
111	Data Compression of Structural Seismic Responses via Principled Independent Component Analysis. Journal of Structural Engineering, 2014, 140, .	1.7	26
112	Continuum field model of defect formation in carbon nanotubes. Journal of Applied Physics, 2005, 97, 074303.	1.1	25
113	Numerical investigation of coexisting high and low amplitude responses and safe basin erosion for a coupled linear oscillator and nonlinear absorber system. Journal of Sound and Vibration, 2014, 333, 3490-3504.	2.1	25
114	Carbon nanotubes as non-contact optical strain sensors in smart skins. Journal of Strain Analysis for Engineering Design, 2015, 50, 505-512.	1.0	25
115	Study of a piecewise linear dynamic system with negative and positive stiffness. Communications in Nonlinear Science and Numerical Simulation, 2015, 22, 1084-1101.	1.7	25
116	Coupled horizontalâ€“vertical stability of bearings under dynamic loading. Earthquake Engineering and Structural Dynamics, 2016, 45, 913-934.	2.5	25
117	Dimensional Analysis of Inelastic Structures with Negative Stiffness and Supplemental Damping Devices. Journal of Structural Engineering, 2017, 143, .	1.7	25
118	Computer visionâ€based realâ€time cable tension estimation algorithm using complexity pursuit from video and its application in Fredâ€Hartman cableâ€stayed bridge. Structural Control and Health Monitoring, 2022, 29, .	1.9	25
119	Direct adaptive neural controller for the active control of earthquake-excited nonlinear base-isolated buildings. Structural Control and Health Monitoring, 2012, 19, 370-384.	1.9	24
120	Dynamic Lateral Stability of Elastomeric Seismic Isolation Bearings. Journal of Structural Engineering, 2014, 140, .	1.7	24
121	Flexural strain sensing using carbon nanotube film. Sensor Review, 2004, 24, 271-273.	1.0	23
122	Semi-active vibration suppression of a space truss structure using a fault tolerant controller. JVC/Journal of Vibration and Control, 2012, 18, 1436-1453.	1.5	22
123	Observer-based structural damage detection using genetic algorithm. Structural Control and Health Monitoring, 2013, 20, 520-531.	1.9	22
124	Effectiveness of Negative Stiffness System in the Benchmark Structural-Control Problem for Seismically Excited Highway Bridges. Journal of Bridge Engineering, 2018, 23, .	1.4	22
125	Structural control benchmark problem: smart base isolated building subjected to near fault earthquakes. Structural Control and Health Monitoring, 2006, 13, 571-572.	1.9	21
126	Adaptive Negative Stiffness: A New Structural Modification Approach for Seismic Protection. Advanced Materials Research, 0, 639-640, 54-66.	0.3	21

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127	Equivalent bilinear elastic single degree of freedom system of multi-degree of freedom structure with negative stiffness. Journal of Sound and Vibration, 2016, 365, 1-14.	2.1	21
128	Adaptive-length pendulum smart tuned mass damper using shape-memory-alloy wire for tuning period in real time. Smart Structures and Systems, 2014, 13, 203-217.	1.9	21
129	Reconstructing structural changes in a dynamic system from experimentally identified state-space models. Journal of Mechanical Science and Technology, 2008, 22, 103-112.	0.7	20
130	Adjustable template stiffness device and SDOF nonlinear frequency response. Nonlinear Dynamics, 2019, 96, 1559-1573.	2.7	20
131	Measurement and identification of the nonlinear dynamics of a jointed structure using full-field data, Part I: Measurement of nonlinear dynamics. Mechanical Systems and Signal Processing, 2022, 166, 108401.	4.4	20
132	A frequency tracking semi-active algorithm for control of edgewise vibrations in wind turbine blades. Smart Structures and Systems, 2014, 13, 177-201.	1.9	19
133	Bayesian estimation of acoustic emissions source in plate structures using particle-based stochastic filtering. Structural Control and Health Monitoring, 2017, 24, e2005.	1.9	18
134	OPTIMAL CONTROL OF STRUCTURES. , 2007, , 221-244.		18
135	Structural damage detection using decentralized controller design method. Smart Structures and Systems, 2008, 4, 779-794.	1.9	18
136	Measurement and identification of the nonlinear dynamics of a jointed structure using full-field data; Part II - Nonlinear system identification. Mechanical Systems and Signal Processing, 2022, 166, 108402.	4.4	17
137	H_{-}/H_{infty } structural damage detection filter design using an iterative linear matrix inequality approach. Smart Materials and Structures, 2008, 17, 035019.	1.8	16
138	Multiscale Wavelet-LQR Controller for Linear Time Varying Systems. Journal of Engineering Mechanics - ASCE, 2010, 136, 1143-1151.	1.6	16
139	Data compression of very large-scale structural seismic and typhoon responses by low-rank representation with matrix reshape. Structural Control and Health Monitoring, 2015, 22, 1119-1131.	1.9	16
140	Toward Practical Non-Contact Optical Strain Sensing Using Single-Walled Carbon Nanotubes. ECS Journal of Solid State Science and Technology, 2016, 5, M3012-M3017.	0.9	16
141	Study of a novel adaptive passive stiffness device and its application for seismic protection. Journal of Sound and Vibration, 2019, 443, 559-575.	2.1	16
142	Inerter dampers with linear hysteretic damping for cable vibration control. Engineering Structures, 2021, 247, 113069.	2.6	16
143	Experimental study on bridge structural health monitoring using blind source separation method: arch bridge. Structural Monitoring and Maintenance, 2014, 1, 69-87.	1.7	16
144	Adaptive length SMA pendulum smart tuned mass damper performance in the presence of real time primary system stiffness change. Smart Structures and Systems, 2014, 13, 219-233.	1.9	16

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145	Effectiveness and robustness of bracedâ€damper systems with adaptive negative stiffness devices in yielding structures. Earthquake Engineering and Structural Dynamics, 2022, 51, 2648-2667.	2.5	16
146	Nonlinear dynamic analysis of multiple building base isolated structures. Computers and Structures, 1994, 50, 47-57.	2.4	15
147	Current Directions of Structural Health Monitoring and Control in USA. Advances in Science and Technology, 0, , .	0.2	15
148	Real time detection of stiffness change using a radial basis function augmented observer formulation. Smart Materials and Structures, 2011, 20, 035013.	1.8	15
149	An analytical method for analyzing symmetry-breaking bifurcation and period-doubling bifurcation. Communications in Nonlinear Science and Numerical Simulation, 2015, 22, 780-792.	1.7	15
150	Dualâ€layer nanotubeâ€based smart skin for enhanced noncontact strain sensing. Structural Control and Health Monitoring, 2019, 26, e2279.	1.9	15
151	Blind modal identification of output-only non-proportionally-damped structures by time-frequency complex independent component analysis. Smart Structures and Systems, 2015, 15, 81-97.	1.9	15
152	On-Line Learning Failure-Tolerant Neural-Aided Controller for Earthquake Excited Structures. Journal of Engineering Mechanics - ASCE, 2008, 134, 258-268.	1.6	14
153	Longitudinal Displacement Behavior and Girder End Reliability of a Jointless Steel-Truss Arch Railway Bridge during Operation. Applied Sciences (Switzerland), 2019, 9, 2222.	1.3	14
154	Seismic Response of Sliding Isolated Bridges with Smart Dampers Subjected to Near Source Ground Motions. , 2000, , 1.		13
155	Improved independent component analysis based modal identification of higher damping structures. Measurement: Journal of the International Measurement Confederation, 2016, 88, 402-416.	2.5	13
156	Real-time cable tension estimation from acceleration measurements using wireless sensors with packet data losses: analytics with compressive sensing and sparse component analysis. Journal of Civil Structural Health Monitoring, 2022, 12, 797-815.	2.0	13
157	Control of structures with friction controllable sliding isolation bearings. Soil Dynamics and Earthquake Engineering, 1993, 12, 103-112.	1.9	12
158	Nonlinear analysis of a SWCNT over a bundle of nanotubes. International Journal of Solids and Structures, 2004, 41, 6925-6936.	1.3	12
159	Bridge damage detection from the equivalent damage load by multitype measurements. Structural Control and Health Monitoring, 2021, 28, e2709.	1.9	12
160	A novel crosswind mitigation strategy for tall buildings using negative stiffness damped outrigger systems. Structural Control and Health Monitoring, 2022, 29, .	1.9	12
161	Noncontact Strain Mapping Using Laser-Induced Fluorescence from Nanotube-Based Smart Skin. Journal of Structural Engineering, 2019, 145, 04018238.	1.7	11
162	Smart tuned mass dampers: recent developments. Smart Structures and Systems, 2014, 13, 173-176.	1.9	11

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163	Reduced order observer based identification of base isolated buildings. Earthquake Engineering and Engineering Vibration, 2003, 2, 237-244.	1.1	10
164	Benchmark structural control problem for a seismically excited highway bridge: Phase I and II. Structural Control and Health Monitoring, 2009, 16, 503-508.	1.9	10
165	Developing a semi-active adjustable stiffness device using integrated damage tracking and adaptive stiffness mechanism. Engineering Structures, 2021, 238, 112036.	2.6	10
166	Benchmark Structural Control Problem for a Seismically Excited Highway Bridge. , 2006, , 1.		9
167	Data-Driven Approach to Structural Health Monitoring Using Statistical Learning Algorithms. Intelligent Systems, Control and Automation: Science and Engineering, 2018, , 295-305.	0.3	9
168	Output-Only Structural Health Monitoring for Deepwater Risers: Experimental Study of Wavelet Modified SOBI and Distributed Force Index Algorithm. International Journal of Structural Stability and Dynamics, 2014, 14, 1440010.	1.5	8
169	Asymmetric Solutions of SDOF System with Wire Rope Vibration Isolator Subjected to Harmonic Excitation. International Journal of Structural Stability and Dynamics, 2015, 15, 1450089.	1.5	8
170	The solution structure of the DÃ¼ffing oscillatorâ€™s transient response and general solution. Nonlinear Dynamics, 2015, 81, 621-639.	2.7	8
171	Nonlinear elastic and inelastic spectra with inherent and supplemental damping. Earthquake Engineering and Structural Dynamics, 2013, 42, 2151-2165.	2.5	7
172	Nonlinear, seismic response spectra of smart sliding isolated structures with independently variable MR dampers and variable stiffness SAIVS system. Structural Engineering and Mechanics, 2006, 24, 375-393.	1.0	7
173	Developing a smart structure using integrated DDA/ISMP and semi-active variable stiffness device. Smart Structures and Systems, 2016, 18, 955-982.	1.9	7
174	Near-infrared photoluminescence of Portland cement. Scientific Reports, 2022, 12, 1197.	1.6	7
175	Quantum-Behaved Particle Swarm Optimization-Based Structural Modal Parameter Identification Under Ambient Excitation. International Journal of Structural Stability and Dynamics, 2016, 16, 1550008.	1.5	6
176	Automatic detection and damage quantification of multiple cracks on concrete surface from video. International Journal of Sustainable Materials and Structural Systems, 2020, 4, 292.	0.2	6
177	Next-generation 2D optical strain mapping with strain-sensing smart skin compared to digital image correlation. Scientific Reports, 2022, 12, .	1.6	6
178	Smart Base isolated Building Benchmark Problem. , 2004, , 1.		5
179	Semi-Active Algorithm for Edgewise Vibration Control in Floating Wind Turbine Blades. , 2010, , .		5
180	A New Structural Modification Approach for Seismic Protection Based on Adaptive Negative Stiffness Device: Conceptual Analysis. , 2011, , .		5

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