Manohar C S

List of Publications by Year
in descending order

72 papers	1,481 citations	304368 22 h-index	344852 36 g-index
73 all docs	73 docs citations	73 times ranked	687 citing authors

#	Article	IF	Citations
1	Progress in Structural Dynamics With Stochastic Parameter Variations: 1987-1998. Applied Mechanics Reviews, 1999, 52, 177-197.	4.5	124
2	An improved response surface method for the determination of failure probability and importance measures. Structural Safety, 2004, 26, 123-139.	2.8	111
3	A time-domain approach for damage detection in beam structures using vibration data with a moving oscillator as an excitation source. Journal of Sound and Vibration, 2003, 268, 699-716.	2.1	103
4	Dynamic analysis of framed structures with statistical uncertainties. International Journal for Numerical Methods in Engineering, 1999, 44, 1157-1178.	1.5	71
5	Investigations into critical earthquake load models within deterministic and probabilistic frameworks. Earthquake Engineering and Structural Dynamics, 2002, 31, 813-832.	2.5	60
6	Nonstationary Random Critical Seismic Excitations. Journal of Engineering Mechanics - ASCE, 1987, 113, 529-541.	1.6	59
7	Critical earthquake input power spectral density function models for engineering structures. Earthquake Engineering and Structural Dynamics, 1995, 24, 1549-1566.	2.5	50
8	Nonlinear structural dynamical system identification using adaptive particle filters. Journal of Sound and Vibration, 2007, 306, 524-563.	2.1	47
9	Nonlinear reduced models for beam damage detection using data on moving oscillator–beam interactions. Computers and Structures, 2004, 82, 301-314.	2.4	39
10	Reliability analysis of randomly vibrating structures with parameter uncertainties. Journal of Sound and Vibration, 2006, 297, 1000-1024.	2.1	35
11	Monte Carlo filters for identification of nonlinear structural dynamical systems. Sadhana - Academy Proceedings in Engineering Sciences, 2006, 31, 399-427.	0.8	35
12	Finite element method based Monte Carlo filters for structural system identification. Probabilistic Engineering Mechanics, 2011, 26, 294-307.	1.3	34
13	CRITICAL SEISMIC VECTOR RANDOM EXCITATIONS FOR MULTIPLY SUPPORTED STRUCTURES. Journal of Sound and Vibration, 1998, 212, 525-546.	2.1	33
14	Reliability-based vector nonstationary random critical earthquake excitations for parametrically excited systems. Structural Safety, 2007, 29, 32-48.	2.8	33
15	A sequential importance sampling filter with a new proposal distribution for state and parameter estimation of nonlinear dynamical systems. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 25-47.	1.0	33
16	A particle filtering approach for structural system identification in vehicle–structure interaction problems. Journal of Sound and Vibration, 2010, 329, 1289-1309.	2.1	33
17	A Kalman filter based strategy for linear structural system identification based on multiple static and dynamic test data. Probabilistic Engineering Mechanics, 2009, 24, 60-74.	1.3	28
18	Safety Assessment of a Masonry Arch Bridge: Field Testing and Simulations. Journal of Bridge Engineering, 2013, 18, 162-171.	1.4	26

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19	DYNAMIC STIFFNESS METHOD FOR CIRCULAR STOCHASTIC TIMOSHENKO BEAMS: RESPONSE VARIABILITY AND RELIABILITY ANALYSES. Journal of Sound and Vibration, 2002, 253, 1051-1085.	2.1	25
20	New forms of extended Kalman filter via transversal linearization and applications to structural system identification. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 5063-5083.	3.4	25
21	Improved Response Surface Method for Time-Variant Reliability Analysis of Nonlinear Random Structures Under Non-Stationary Excitations. Nonlinear Dynamics, 2004, 36, 267-280.	2.7	24
22	Global response sensitivity analysis using probability distance measures and generalization of Sobol's analysis. Probabilistic Engineering Mechanics, 2015, 41, 21-33.	1.3	24
23	Reliability-based critical earthquake load models. Part 2: nonlinear structures. Journal of Sound and Vibration, 2005, 287, 883-900.	2.1	23
24	Global response sensitivity analysis of uncertain structures. Structural Safety, 2016, 58, 94-104.	2.8	21
25	CRITICAL CROSS POWER SPECTRAL DENSITY FUNCTIONS AND THE HIGHEST RESPONSE OF MULTI-SUPPORTED STRUCTURES SUBJECTED TO MULTI-COMPONENT EARTHQUAKE EXCITATIONS. Earthquake Engineering and Structural Dynamics, 1996, 25, 303-315.	2.5	20
26	A conditionally linearized Monte Carlo filter in non-linear structural dynamics. International Journal of Non-Linear Mechanics, 2009, 44, 776-790.	1.4	20
27	Time variant reliability model updating in instrumented dynamical systems based on Girsanov's transformation. International Journal of Non-Linear Mechanics, 2013, 52, 32-40.	1.4	20
28	Multivariate Extreme Value Distributions for Random Vibration Applications. Journal of Engineering Mechanics - ASCE, 2005, 131, 712-720.	1.6	19
29	Reliability models for existing structures based on dynamic state estimation and data based asymptotic extreme value analysis. Probabilistic Engineering Mechanics, 2010, 25, 393-405.	1.3	19
30	Reliability-based critical earthquake load models. Part 1: linear structures. Journal of Sound and Vibration, 2005, 287, 865-882.	2.1	17
31	Probability Distribution of Extremes of Von Mises Stress in Randomly Vibrating Structures. Journal of Vibration, Acoustics, Stress, and Reliability in Design, 2005, 127, 547.	2.0	17
32	Use of particle filters in an active control algorithm for noisy nonlinear structural dynamical systems. Journal of Sound and Vibration, 2007, 306, 111-135.	2.1	15
33	Experimental estimation of time variant system reliability of vibrating structures based on subset simulation with Markov chain splitting. Reliability Engineering and System Safety, 2018, 178, 55-68.	5.1	15
34	Dynamic stiffness matrix of a general cable element. Archive of Applied Mechanics, 1996, 66, 315-325.	1.2	14
35	Markov chain splitting methods in structural reliability integral estimation. Probabilistic Engineering Mechanics, 2015, 40, 42-51.	1.3	13
36	Probability Distribution of the Eigenvalues of the Random String Equation. Journal of Applied Mechanics, Transactions ASME, 1989, 56, 202-207.	1.1	12

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37	A semi-analytical particle filter for identification of nonlinear oscillators. Probabilistic Engineering Mechanics, 2010, 25, 35-48.	1.3	12
38	Updating reliability models of statically loaded instrumented structures. Structural Safety, 2013, 40, 21-30.	2.8	12
39	Girsanov's transformation based variance reduced Monte Carlo simulation schemes for reliability estimation in nonlinear stochastic dynamics. Journal of Computational Physics, 2017, 341, 278-294.	1.9	11
40	Inverse problems in structural safety analysis with combined probabilistic and non-probabilistic uncertainty models. Engineering Structures, 2017, 150, 166-175.	2.6	11
41	Estimation of time variant reliability of randomly parametered non-linear vibrating systems. Structural Safety, 2014, 47, 59-66.	2.8	10
42	Random vibration testing with controlled samples. Structural Control and Health Monitoring, 2014, 21, 1269-1283.	1.9	10
43	Nonlinear dynamic state estimation in instrumented structures with conditionally linear Gaussian substructures. Probabilistic Engineering Mechanics, 2012, 30, 89-103.	1.3	9
44	Bayesian parameter identification in dynamic state space models using modified measurement equations. International Journal of Non-Linear Mechanics, 2015, 71, 89-103.	1.4	9
45	Methods of nonlinear random vibration analysis. Sadhana - Academy Proceedings in Engineering Sciences, 1995, 20, 345-371.	0.8	8
46	Structural analysis with alternative uncertainty models: From data to safety measures. Structural Safety, 2016, 62, 116-127.	2.8	8
47	Inverse reliability based structural design for system dependent critical earthquake loads. Probabilistic Engineering Mechanics, 2005, 20, 19-31.	1.3	7
48	Updating response sensitivity models of nonlinear vibrating structures using particle filters. Computers and Structures, 2011, 89, 901-911.	2.4	7
49	Investigations into critical earthquake load models within deterministic and probabilistic frameworks. , 2002, 31, 813.		7
50	System reliability of randomly vibrating structures: Computational modeling and laboratory testing. Journal of Sound and Vibration, 2015, 351, 189-205.	2.1	6
51	State dependent Girsanov's controls in time variant reliability estimation in randomly excited dynamical systems. Structural Safety, 2018, 72, 30-40.	2.8	6
52	Particle filters for structural system identification using multiple test and sensor data: A combined computational and experimental study. Structural Control and Health Monitoring, 2010, 18, n/a-n/a.	1.9	5
53	Dynamic state estimation for identifying earthquake support motions in instrumented structures. Earthquake and Structures, 2013, 5, 359-378.	1.0	5
54	Girsanov Transformation–Based Reliability Modeling and Testing of Actively Controlled Structures. Journal of Engineering Mechanics - ASCE, 2015, 141, 04014168.	1.6	5

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55	Global Response Sensitivity Analysis of Randomly Excited Dynamic Structures. Journal of Engineering Mechanics - ASCE, 2016, 142, 04015094.	1.6	5
56	Optimal cross-spectrum of road loads on vehicles: theory and experiments. JVC/Journal of Vibration and Control, 2016, 22, 4012-4024.	1.5	5
57	Substructuring tools for probabilistic analysis of instrumented nonlinear moving oscillator–beam systems. Applied Mathematical Modelling, 2017, 42, 600-617.	2.2	4
58	Combined state and parameter identification of nonlinear structural dynamical systems based on Rao-Blackwellization and Markov chain Monte Carlo simulations. Mechanical Systems and Signal Processing, 2018, 102, 364-381.	4.4	4
59	Adaptive time stepping in pseudo-dynamic testing of earthquake driven structures. Bulletin of Earthquake Engineering, 2016, 14, 3047-3074.	2.3	3
60	Time variant reliability estimation of randomly excited uncertain dynamical systems by combined Markov chain splitting and Girsanov's transformation. Archive of Applied Mechanics, 2020, 90, 2363-2377.	1.2	3
61	Multivariate probability distribution of ordered peaks of vector Gaussian random processes. Probabilistic Engineering Mechanics, 2005, 20, 87-96.	1.3	2
62	Numerical aspects of a real-time sub-structuring technique in structural dynamics. International Journal for Numerical Methods in Engineering, 2007, 72, 1261-1313.	1.5	2
63	Model Distance–Based Global–Local Response-Sensitivity Indexes for Randomly Inhomogeneous Structures under Stochastic Excitations. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2018, 4, 05018002.	1.1	2
64	Estimation of time-variant system reliability of nonlinear randomly excited systems based on the Girsanov transformation with state-dependent controls. Nonlinear Dynamics, 2019, 95, 1693-1711.	2.7	2
65	Narrowband random excitation of a limit cycle system. Archive of Applied Mechanics, 1991, 61, 133-141.	1.2	2
66	Dynamic stiffness matrix for axially vibrating stochastic rods using Stratonovich's averaging principle. Archive of Applied Mechanics, 1997, 67, 200-213.	1.2	1
67	Optimal input cross-power spectra in shake table testing of asymmetric structures. Earthquake and Structures, 2015, 9, 1115-1132.	1.0	1
68	Simulation Based Methods for Model Updating in Structural Condition Assessment. , 2013, , 83-112.		0
69	Substructuring Methods for Finite Element Analysis. , 2014, , 1-15.		0
70	Substructuring Methods for Finite Element Analysis. , 2015, , 3691-3704.		0
71	Efficient Simulation-Based Bayesian Methods for Structural Condition Assessment. , 2022, , 73-109.		0
72	Dynamic state estimation in nonlinear stiff systems using implicit state space models. Structural Control and Health Monitoring, 0, , .	1.9	0