

# Heung-Fai Lam

## List of Publications by Year in descending order

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45  
papers

1,814  
citations

185998

28  
h-index

264894

42  
g-index

47  
all docs

47  
docs citations

47  
times ranked

967  
citing authors

#	ARTICLE	IF	CITATIONS
1	Study of wake characteristics of a vertical axis wind turbine by two- and three-dimensional computational fluid dynamics simulations. <i>Renewable Energy</i> , 2016, 90, 386-398.	4.3	147
2	Bayesian model updating of a coupled-slab system using field test data utilizing an enhanced Markov chain Monte Carlo simulation algorithm. <i>Engineering Structures</i> , 2015, 102, 144-155.	2.6	122
3	Structural Health Monitoring via Measured Ritz Vectors Utilizing Artificial Neural Networks. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2006, 21, 232-241.	6.3	108
4	On the complexity of artificial neural networks for smart structures monitoring. <i>Engineering Structures</i> , 2006, 28, 977-984.	2.6	89
5	Dynamic reduction-based structural damage detection of transmission tower utilizing ambient vibration data. <i>Engineering Structures</i> , 2009, 31, 2009-2019.	2.6	79
6	Analysis and design of the general and outmost-ring stiffened suspen-dome structures. <i>Engineering Structures</i> , 2003, 25, 1685-1695.	2.6	73
7	A Bayesian Probabilistic Approach for Crack Characterization in Plate Structures. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2010, 25, 375-386.	6.3	73
8	Bayesian operational modal analysis and Markov chain Monte Carlo-based model updating of a factory building. <i>Engineering Structures</i> , 2017, 132, 314-336.	2.6	70
9	Tangential-projection algorithm for manifold representation in unidentifiable model updating problems. <i>Earthquake Engineering and Structural Dynamics</i> , 2002, 31, 791-812.	2.5	58
10	Turbulence effects on the wake characteristics and aerodynamic performance of a straight-bladed vertical axis wind turbine by wind tunnel tests and large eddy simulations. <i>Energy</i> , 2016, 109, 557-568.	4.5	56
11	The Bayesian methodology for the detection of railway ballast damage under a concrete sleeper. <i>Engineering Structures</i> , 2014, 81, 289-301.	2.6	53
12	Markov chain Monte Carlo-based Bayesian method for structural model updating and damage detection. <i>Structural Control and Health Monitoring</i> , 2018, 25, e2140.	1.9	51
13	Assessment and optimization of the power performance of twin vertical axis wind turbines via numerical simulations. <i>Renewable Energy</i> , 2020, 147, 43-54.	4.3	50
14	Full-scale dynamic testing and modal identification of a coupled floor slab system. <i>Engineering Structures</i> , 2012, 37, 167-178.	2.6	49
15	Development of a practical algorithm for Bayesian model updating of a coupled slab system utilizing field test data. <i>Engineering Structures</i> , 2014, 79, 182-194.	2.6	48
16	A feasibility study on railway ballast damage detection utilizing measured vibration of in situ concrete sleeper. <i>Engineering Structures</i> , 2012, 45, 284-298.	2.6	46
17	Assessing uncertainty in operational modal analysis incorporating multiple setups using a Bayesian approach. <i>Structural Control and Health Monitoring</i> , 2015, 22, 395-416.	1.9	43
18	Fast Bayesian approach for modal identification using free vibration data, Part I – Most probable value. <i>Mechanical Systems and Signal Processing</i> , 2016, 70-71, 209-220.	4.4	42

#	ARTICLE	IF	CITATIONS
19	Entropy-Based Optimal Sensor Placement for Model Identification of Periodic Structures Endowed with Bolted Joints. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2017, 32, 1007-1024.	6.3	41
20	Experimental characterization of multiple cracks in a cantilever beam utilizing transient vibration data following a probabilistic approach. <i>Journal of Sound and Vibration</i> , 2007, 305, 34-49.	2.1	39
21	Structural protection using MR dampers with clipped robust reliability-based control. <i>Structural and Multidisciplinary Optimization</i> , 2007, 34, 431-443.	1.7	39
22	Investigation into the wake aerodynamics of a five-straight-bladed vertical axis wind turbine by wind tunnel tests. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2016, 155, 23-35.	1.7	38
23	Bayesian structural model updating using ambient vibration data collected by multiple setups. <i>Structural Control and Health Monitoring</i> , 2017, 24, e2023.	1.9	36
24	Power performance assessment of H-rotor vertical axis wind turbines with different aspect ratios in turbulent flows via experiments. <i>Energy</i> , 2019, 173, 121-132.	4.5	35
25	Statistical detection of multiple cracks on thin plates utilizing dynamic response. <i>Engineering Structures</i> , 2010, 32, 3145-3152.	2.6	33
26	Bayesian structural damage detection of steel towers using measured modal parameters. <i>Earthquake and Structures</i> , 2015, 8, 935-956.	1.0	32
27	Identification of rail-sleeper-ballast system through time-domain Markov chain Monte Carlo-based Bayesian approach. <i>Engineering Structures</i> , 2017, 140, 421-436.	2.6	31
28	Markov chain Monte Carlo-based Bayesian model updating of a sailboat-shaped building using a parallel technique. <i>Engineering Structures</i> , 2019, 193, 12-27.	2.6	30
29	An efficient adaptive sequential Monte Carlo method for Bayesian model updating and damage detection. <i>Structural Control and Health Monitoring</i> , 2018, 25, e2260.	1.9	28
30	Application of two-dimensional spatial wavelet transform in the detection of an obstructed crack on a thin plate. <i>Structural Control and Health Monitoring</i> , 2012, 19, 260-277.	1.9	25
31	Operational modal identification and finite element model updating of a coupled building following Bayesian approach. <i>Structural Control and Health Monitoring</i> , 2018, 25, e2089.	1.9	21
32	Dynamic Analysis of Finite-Length Circular Cylindrical Shells with a Circumferential Surface Crack. <i>Journal of Engineering Mechanics - ASCE</i> , 2013, 139, 1419-1434.	1.6	19
33	A Bayesian methodology for detection of railway ballast damage using the modified Ludwik nonlinear model. <i>Engineering Structures</i> , 2021, 236, 112047.	2.6	19
34	An innovative Bayesian system identification method using autoregressive model. <i>Mechanical Systems and Signal Processing</i> , 2019, 133, 106289.	4.4	16
35	Numerical Modeling of Magnetic Nanoparticle and Carrier Fluid Interactions Under Static and Double-Shear Flows. <i>IEEE Nanotechnology Magazine</i> , 2017, 16, 798-805.	1.1	12
36	Time-domain Markov chain Monte Carlo-based Bayesian damage detection of ballasted tracks using nonlinear ballast stiffness model. <i>Structural Health Monitoring</i> , 2021, 20, 2653-2677.	4.3	12

#	ARTICLE	IF	CITATIONS
37	Comparative study of the performances of a bio-inspired flexible-bladed wind turbine and a rigid-bladed wind turbine in centimeter-scale. <i>Energy</i> , 2020, 213, 118835.	4.5	12
38	Bayesian model updating of a 20-story office building utilizing operational modal analysis results. <i>Advances in Structural Engineering</i> , 2019, 22, 3385-3394.	1.2	11
39	Statistical detection of structural damage based on model reduction. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2009, 30, 875-888.	1.9	8
40	A feasibility study on void detection of cement-emulsified asphalt mortar for slab track system utilizing measured vibration data. <i>Engineering Structures</i> , 2021, 245, 112349.	2.6	7
41	Bayesian System Identification of Rail“Sleeper”Ballast System in Time and Modal Domains: Comparative Study. <i>ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering</i> , 2022, 8, .	1.1	4
42	Numerical investigation of the power and self-start performance of a folding-blade horizontal axis wind turbine with a downwind configuration. <i>International Journal of Green Energy</i> , 2022, 19, 28-51.	2.1	3
43	On the selection of the most plausible non-linear axial stress“strain model for railway ballast under different impulse magnitudes. <i>Structural Health Monitoring</i> , 0, , 147592172110339.	4.3	3
44	Development of a virtual testing application for the teaching and learning of structural engineering. <i>IES Journal Part A: Civil and Structural Engineering</i> , 2010, 3, 119-130.	0.4	2
45	A data-driven method for real-time compaction quality evaluation of a cement-stabilized base layer. <i>Advances in Structural Engineering</i> , 0, , 136943322210946.	1.2	1