Eric Hernandez

List of Publications by Year
in descending order

38 papers	**557** citations	566801 **15** h-index	676716 **22** g-index
39 all docs	**39** docs citations	**39** times ranked	**399** citing authors

#	Article	IF	Citations
1	An extended model-based observer for state estimation in nonlinear hysteretic structural systems. Mechanical Systems and Signal Processing, 2021, 146, 107015.	4.4	22
2	Reconstructing Element-by-Element Dissipated Hysteretic Energy in Instrumented Buildings: Application to the Van Nuys Hotel Testbed. Journal of Engineering Mechanics - ASCE, 2021, 147, .	1.6	14
3	Continuous estimation of ground reaction force during long distance running within a fatigue monitoring framework: A Kalman filter-based model-data fusion approach. Journal of Biomechanics, 2021, 115, 110130.	0.9	11
4	Risk of Cascading Blackouts Given Correlated Component Outages. IEEE Transactions on Network Science and Engineering, 2020, 7, 1133-1144.	4.1	8
5	Performance-based post-earthquake decision making for instrumented buildings. Journal of Civil Structural Health Monitoring, 2020, 10, 775-792.	2.0	23
6	Non-negative and sparsity constrained inverse problems in damage identification â€" Application to a full-scale 3D truss. Mechanical Systems and Signal Processing, 2020, 140, 106648.	4.4	12
7	Nonlinear seismic response reconstruction and performance assessment of instrumented woodâ€frame buildingsâ€"Validation using NEESWood Capstone fullâ€scale tests. Structural Control and Health Monitoring, 2019, 26, e2373.	1.9	25
8	Balancing robustness and optimality in sensor placement for dynamic state estimation. Mechanical Systems and Signal Processing, 2019, 128, 318-328.	4.4	8
9	Non-negative constrained inverse eigenvalue problems â€" Application to damage identification. Mechanical Systems and Signal Processing, 2019, 129, 629-644.	4.4	7
10	Detection of spatially sparse damage using impulse response sensitivity and LASSO regularization. Inverse Problems in Science and Engineering, 2019, 27, 1-16.	1.2	13
11	Estimation of elementâ€byâ€element demandâ€toâ€capacity ratios in instrumented SMRF buildings using measured seismic response. Earthquake Engineering and Structural Dynamics, 2018, 47, 2561-2578.	2.5	16
12	Exploiting Spatial Sparsity in Vibration-Based Damage Detection. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 1-7.	0.3	0
13	Exploiting Spatial Sparsity in Vibration-based Damage Detection. Procedia Engineering, 2017, 199, 1925-1930.	1.2	0
14	Efficient sensor placement for state estimation in structural dynamics. Mechanical Systems and Signal Processing, 2017, 85, 789-800.	4.4	28
15	Kalman filter robustness for fatigue usage monitoring of flexible frame structures. , 2016, , .		0
16	Bayesian Modelâ€"Data Fusion for Mechanistic Postearthquake Damage Assessment of Building Structures. Journal of Engineering Mechanics - ASCE, 2016, 142, .	1.6	18
17	Finite element model updating of semi-composite bridge decks using operational acceleration measurements. Engineering Structures, 2016, 126, 264-277.	2.6	19
18	Highâ€resolution seismic monitoring of instrumented buildings using a modelâ€based state observer. Earthquake Engineering and Structural Dynamics, 2016, 45, 2513-2531.	2.5	14

#	Article	IF	Citations
19	A lower bound for the variance of frequency and damping ratio identified from noisy vibration measurements. Structural Control and Health Monitoring, 2016, 23, 5-19.	1.9	9
20	Uncertainty Quantification of State Estimation in Nonlinear Structural Systems with Application to Seismic Response in Buildings. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2016, 2, .	1.1	15
21	Identification of Localized Structural Damage from Highly Incomplete Modal Information: Theory and Experiments. Journal of Engineering Mechanics - ASCE, 2016, 142, 04015075.	1.6	12
22	Post-Earthquake Diagnosis of Partially Instrumented Building Structures. , 2015, , 1933-1941.		0
23	Uncertainty Quantification for State Estimation in Nonlinear Structural Systems. , 2014, , .		1
24	A model-based observer for state and stress estimation in structural and mechanical systems: Experimental validation. Mechanical Systems and Signal Processing, 2014, 43, 141-152.	4.4	49
25	Identification of isolated structural damage from incomplete spectrum information using l1-norm minimization. Mechanical Systems and Signal Processing, 2014, 46, 59-69.	4.4	55
26	State Estimation in Nonlinear Structural Systems. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 249-257.	0.3	4
27	Post-earthquake Diagnosis of Partially Instrumented Building Structures. , 2014, , 1-10.		0
28	Optimal model-based state estimation in mechanical and structural systems. Structural Control and Health Monitoring, 2013, 20, 532-543.	1.9	20
29	Iterative finite element model updating in the time domain. Mechanical Systems and Signal Processing, 2013, 34, 39-46.	4.4	16
30	Dissipated Energy Ratio as a Feature for Earthquake-Induced Damage Detection of Instrumented Structures. Journal of Engineering Mechanics - ASCE, 2013, 139, 1521-1529.	1.6	17
31	On-line monitoring of wind-induced stresses and fatigue damage in instrumented structures. Structural Control and Health Monitoring, 2013, 20, 1291-1302.	1.9	27
32	Experimental verification of a finite element model based functional observer for structural systems. , 2013, , .		0
33	Real-Time Dynamic Stress Response Estimation at Critical Locations of Instrumented Structures Embedded in Random Fields. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 367-374.	0.3	0
34	Output-Only Estimation of Wind Induced Stresses in Structures. Conference Proceedings of the Society for Experimental Mechanics, 2012, , 345-350.	0.3	0
35	A natural observer for optimal state estimation in second order linear structural systems. Mechanical Systems and Signal Processing, 2011, 25, 2938-2947.	4.4	43
36	State Estimation in Structural Systems with Model Uncertainties. Journal of Engineering Mechanics - ASCE, 2008, 134, 252-257.	1.6	25

#	ARTICLE	IF	CITATIONS
37	A data-driven methodology for assessing impact of earthquakes on the health of building structural systems. Structural Design of Tall and Special Buildings, 2006, 15, 21-34.	0.9	19
38	Nonlinear Seismic Response Reconstruction in Minimally Instrumented Buildingsâ€"Validation Using NEESWood Capstone Full-Scale Tests. , 0, , .		2