

Eric Hernandez

List of Publications by Year in descending order

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38
papers

557
citations

566801

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676716

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39
all docs

39
docs citations

39
times ranked

399
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | 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 |
| 2 | 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 |
| 3 | 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 |
| 4 | Efficient sensor placement for state estimation in structural dynamics. Mechanical Systems and Signal Processing, 2017, 85, 789-800. | 4.4 | 28 |
| 5 | 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 |
| 6 | State Estimation in Structural Systems with Model Uncertainties. Journal of Engineering Mechanics - ASCE, 2008, 134, 252-257. | 1.6 | 25 |
| 7 | Nonlinear seismic response reconstruction and performance assessment of instrumented wood-frame buildings—Validation using NEESWood Capstone full-scale tests. Structural Control and Health Monitoring, 2019, 26, e2373. | 1.9 | 25 |
| 8 | Performance-based post-earthquake decision making for instrumented buildings. Journal of Civil Structural Health Monitoring, 2020, 10, 775-792. | 2.0 | 23 |
| 9 | An extended model-based observer for state estimation in nonlinear hysteretic structural systems. Mechanical Systems and Signal Processing, 2021, 146, 107015. | 4.4 | 22 |
| 10 | Optimal model-based state estimation in mechanical and structural systems. Structural Control and Health Monitoring, 2013, 20, 532-543. | 1.9 | 20 |
| 11 | 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 |
| 12 | Finite element model updating of semi-composite bridge decks using operational acceleration measurements. Engineering Structures, 2016, 126, 264-277. | 2.6 | 19 |
| 13 | Bayesian Model—Data Fusion for Mechanistic Postearthquake Damage Assessment of Building Structures. Journal of Engineering Mechanics - ASCE, 2016, 142, . | 1.6 | 18 |
| 14 | 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 |
| 15 | Iterative finite element model updating in the time domain. Mechanical Systems and Signal Processing, 2013, 34, 39-46. | 4.4 | 16 |
| 16 | Estimation of element-by-element demand-to-capacity ratios in instrumented SMRF buildings using measured seismic response. Earthquake Engineering and Structural Dynamics, 2018, 47, 2561-2578. | 2.5 | 16 |
| 17 | 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 |
| 18 | High-resolution seismic monitoring of instrumented buildings using a model-based state observer. Earthquake Engineering and Structural Dynamics, 2016, 45, 2513-2531. | 2.5 | 14 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | 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 |
| 20 | 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 |
| 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 | Non-negative and sparsity constrained inverse problems in damage identification “ Application to a full-scale 3D truss. Mechanical Systems and Signal Processing, 2020, 140, 106648. | 4.4 | 12 |
| 23 | 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 |
| 24 | 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 |
| 25 | Balancing robustness and optimality in sensor placement for dynamic state estimation. Mechanical Systems and Signal Processing, 2019, 128, 318-328. | 4.4 | 8 |
| 26 | Risk of Cascading Blackouts Given Correlated Component Outages. IEEE Transactions on Network Science and Engineering, 2020, 7, 1133-1144. | 4.1 | 8 |
| 27 | Non-negative constrained inverse eigenvalue problems “ Application to damage identification. Mechanical Systems and Signal Processing, 2019, 129, 629-644. | 4.4 | 7 |
| 28 | State Estimation in Nonlinear Structural Systems. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 249-257. | 0.3 | 4 |
| 29 | Nonlinear Seismic Response Reconstruction in Minimally Instrumented Buildings“Validation Using NEESWood Capstone Full-Scale Tests. , 0, , . | | 2 |
| 30 | Uncertainty Quantification for State Estimation in Nonlinear Structural Systems. , 2014, , . | | 1 |
| 31 | Experimental verification of a finite element model based functional observer for structural systems. , 2013, , . | | 0 |
| 32 | Kalman filter robustness for fatigue usage monitoring of flexible frame structures. , 2016, , . | | 0 |
| 33 | Exploiting Spatial Sparsity in Vibration-Based Damage Detection. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 1-7. | 0.3 | 0 |
| 34 | Exploiting Spatial Sparsity in Vibration-based Damage Detection. Procedia Engineering, 2017, 199, 1925-1930. | 1.2 | 0 |
| 35 | Output-Only Estimation of Wind Induced Stresses in Structures. Conference Proceedings of the Society for Experimental Mechanics, 2012, , 345-350. | 0.3 | 0 |
| 36 | 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 |

| # | ARTICLE | IF | CITATIONS |
|----|---|----|-----------|
| 37 | Post-earthquake Diagnosis of Partially Instrumented Building Structures. , 2014, , 1-10. | | 0 |
| 38 | Post-Earthquake Diagnosis of Partially Instrumented Building Structures. , 2015, , 1933-1941. | | 0 |