

# Onur Avci

## List of Publications by Year in Descending Order

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**Version:** 2024-04-26

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

72  
papers

2,046  
citations

18  
h-index

44  
g-index

76  
ext. papers

2,913  
ext. citations

2.6  
avg, IF

5.98  
L-index

#	Paper	IF	Citations
72	A New Benchmark Problem for Structural Damage Detection: Bolt Loosening Tests on a Large-Scale Laboratory Structure. <i>Conference Proceedings of the Society for Experimental Mechanics, 2022, 15-22</i>	0.3	
71	Operational modal analysis and finite element model updating of a 230 m tall tower. <i>Structures, 2022, 37, 154-167</i>	3.4	1
70	Operational Modal Analysis and Finite Element Model Updating of a 53-Story Building. <i>Conference Proceedings of the Society for Experimental Mechanics, 2022, 83-91</i>	0.3	
69	Structural Damage Detection in Civil Engineering with Machine Learning: Current State of the Art. <i>Conference Proceedings of the Society for Experimental Mechanics, 2022, 223-229</i>	0.3	3
68	An Overview of Deep Learning Methods Used in Vibration-Based Damage Detection in Civil Engineering. <i>Conference Proceedings of the Society for Experimental Mechanics, 2022, 93-98</i>	0.3	0
67	One-Dimensional Convolutional Neural Networks for Real-Time Damage Detection of Rotating Machinery. <i>Conference Proceedings of the Society for Experimental Mechanics, 2022, 73-83</i>	0.3	2
66	An Overview on Floor Vibration Serviceability Evaluation Methods with a Large Database of Recorded Floor Data. <i>Conference Proceedings of the Society for Experimental Mechanics, 2021, 91-101</i>	0.3	3
65	Effect of Non-Structural Components on the Dynamic Response of Steel-Framed Floors: Tests Before and After Component Installations. <i>Frontiers in Built Environment, 2021, 7,</i>	2.2	1
64	<i>. IEEE Access, 2021, 9, 139260-139270</i>	3.5	1
63	A methodological approach towards evaluating structural damage severity using 1D CNNs. <i>Structures, 2021, 34, 4435-4446</i>	3.4	5
62	Vibrations Assessment of Existing Building Foundations Due to Moving Trains in Underground Tunnels. <i>Conference Proceedings of the Society for Experimental Mechanics, 2021, 65-73</i>	0.3	3
61	Effective standoff in standing seam roof systems. <i>Journal of Constructional Steel Research, 2021, 180, 106590</i>	3.8	4
60	A review of vibration-based damage detection in civil structures: From traditional methods to Machine Learning and Deep Learning applications. <i>Mechanical Systems and Signal Processing, 2021, 147, 107077</i>	7.8	181
59	1D convolutional neural networks and applications: A survey. <i>Mechanical Systems and Signal Processing, 2021, 151, 107398</i>	7.8	277
58	A numerical and experimental investigation of a special type of floating-slab tracks. <i>Engineering Structures, 2020, 215, 110734</i>	4.7	12
57	A Review of Experimental Studies on Laboratory Grandstands <b>2020, 363-372</b>		1
56	EFFICIENCY OF 1D CNNs IN FINITE ELEMENT MODEL PARAMETER ESTIMATION USING SYNTHETIC DYNAMIC RESPONSES <b>2020,</b>		3

55	A novel video-vibration monitoring system for walking pattern identification on floors. <i>Advances in Engineering Software</i> , <b>2020</b> , 139, 102710	3.6	10
54	Analysis of floor vibration evaluation methods using a large database of floors framed with W-Shaped members subjected to walking excitation. <i>Journal of Constructional Steel Research</i> , <b>2020</b> , 164, 105764	3.8	4
53	Investigation of Uplift Pressures on a Drainage Shaft Using ANSYS SOLID185 Elements and Drucker-Prager Failure Criterion for the Surrounding Rock Stratum. <i>Journal of Performance of Constructed Facilities</i> , <b>2020</b> , 34, 04019083	2	3
52	Vibration annoyance assessment of train induced excitations from tunnels embedded in rock. <i>Science of the Total Environment</i> , <b>2020</b> , 711, 134528	10.2	12
51	Structural Health Monitoring with Self-Organizing Maps and Artificial Neural Networks. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2020</b> , 237-246	0.3	5
50	Convolutional Neural Networks for Real-Time and Wireless Damage Detection. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2020</b> , 129-136	0.3	11
49	Control of Plate Vibrations with Artificial Neural Networks and Piezoelectricity. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2020</b> , 293-301	0.3	1
48	1-D Convolutional Neural Networks for Signal Processing Applications <b>2019</b> ,		89
47	Review of Pedestrian Load Models for Vibration Serviceability Assessment of Floor Structures. <i>Vibration</i> , <b>2019</b> , 2, 1-24	2	18
46	Fault Detection and Severity Identification of Ball Bearings by Online Condition Monitoring. <i>IEEE Transactions on Industrial Electronics</i> , <b>2019</b> , 66, 8136-8147	8.9	51
45	Vibrations Serviceability of a Medical Facility Floor for Sensitive Equipment Replacement: Evaluation with Sparse In Situ Data. <i>Practice Periodical on Structural Design and Construction</i> , <b>2019</b> , 24, 05018006	1.2	10
44	Unreinforced Masonry Façade Assessment of a Historic Building for Excessive Displacements Due to a Nearby Subway Construction. <i>Practice Periodical on Structural Design and Construction</i> , <b>2019</b> , 24, 05018005	1.2	6
43	Finite-Element Analysis of Cantilever Slab Deflections with ANSYS SOLID65 3D Reinforced-Concrete Element with Cracking and Crushing Capabilities. <i>Practice Periodical on Structural Design and Construction</i> , <b>2019</b> , 24, 05018007	1.2	5
42	Novel Framework for Vibration Serviceability Assessment of Stadium Grandstands Considering Durations of Vibrations. <i>Journal of Structural Engineering</i> , <b>2018</b> , 144, 04017214	3	13
41	Wireless and real-time structural damage detection: A novel decentralized method for wireless sensor networks. <i>Journal of Sound and Vibration</i> , <b>2018</b> , 424, 158-172	3.9	84
40	1-D CNNs for structural damage detection: Verification on a structural health monitoring benchmark data. <i>Neurocomputing</i> , <b>2018</b> , 275, 1308-1317	5.4	180
39	Threat and vulnerability risk assessment for existing subway stations: A simplified approach. <i>Case Studies on Transport Policy</i> , <b>2018</b> , 6, 663-673	2.7	15
38	Seismic Assessment of Existing Lowrise and Midrise Reinforced Concrete Buildings Using the 2014 Qatar Construction Specification. <i>Journal of Architectural Engineering</i> , <b>2018</b> , 24, 04018028	1.5	5

37	Nonexplosive Deconstruction of Steel Girder Highway Bridges. <i>Journal of Performance of Constructed Facilities</i> , <b>2017</b> , 31, 04016087	2	3
36	Vibration Suppression in Metastructures Using Zigzag Inserts Optimized by Genetic Algorithms. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2017</b> , 275-283	0.3	2
35	Structural Damage Detection in Real Time: Implementation of 1D Convolutional Neural Networks for SHM Applications. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2017</b> , 49-54	0.3	23
34	Dynamic Forces Induced by a Single Pedestrian: A Literature Review. <i>Applied Mechanics Reviews</i> , <b>2017</b> , 69,	8.6	20
33	Real-time vibration-based structural damage detection using one-dimensional convolutional neural networks. <i>Journal of Sound and Vibration</i> , <b>2017</b> , 388, 154-170	3.9	498
32	Optimization of linear zigzag insert metastructures for low-frequency vibration attenuation using genetic algorithms. <i>Mechanical Systems and Signal Processing</i> , <b>2017</b> , 84, 625-641	7.8	12
31	Sensing and Monitoring for Stadium Structures: A Review of Recent Advances and a Forward Look. <i>Frontiers in Built Environment</i> , <b>2017</b> , 3,	2.2	23
30	Nonlinear Damping in Floor Vibrations Serviceability: Verification on a Laboratory Structure. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2017</b> , 139-145	0.3	10
29	Self-Organizing Maps for Structural Damage Detection: A Novel Unsupervised Vibration-Based Algorithm. <i>Journal of Performance of Constructed Facilities</i> , <b>2016</b> , 30, 04015043	2	26
28	Dynamic Testing of a Laboratory Stadium Structure <b>2016</b> ,		10
27	<b>2016</b> ,		9
26	Quantification of Structural Damage with Self-Organizing Maps. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2016</b> , 47-57	0.3	12
25	Active vibration control of flexible cantilever plates using piezoelectric materials and artificial neural networks. <i>Journal of Sound and Vibration</i> , <b>2016</b> , 363, 33-53	3.9	81
24	Optimization of chiral lattice based metastructures for broadband vibration suppression using genetic algorithms. <i>Journal of Sound and Vibration</i> , <b>2016</b> , 369, 50-62	3.9	28
23	Genetic Algorithm use for Internally Resonating Lattice Optimization: Case of a Beam-Like Metastructure. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2016</b> , 289-295	0.3	2
22	Nonparametric Structural Damage Detection Algorithm for Ambient Vibration Response: Utilizing Artificial Neural Networks and Self-Organizing Maps. <i>Journal of Architectural Engineering</i> , <b>2016</b> , 22, 04016004	1.5	31
21	Blind identification of the Millikan Library from earthquake data considering soil-structure interaction. <i>Structural Control and Health Monitoring</i> , <b>2016</b> , 23, 684-706	4.5	27
20	Amplitude-Dependent Damping in Vibration Serviceability: Case of a Laboratory Footbridge. <i>Journal of Architectural Engineering</i> , <b>2016</b> , 22, 04016005	1.5	15

19	Recent Issues on Stadium Monitoring and Serviceability: A Review. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2016</b> , 411-416	0.3	17
18	Diaphragm shear strength and stiffness of aluminum roof panel assemblies. <i>Thin-Walled Structures</i> , <b>2016</b> , 106, 51-60	4.7	16
17	A Comparative Assessment of Nonlinear State Estimation Methods for Structural Health Monitoring. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2015</b> , 45-54	0.3	13
16	Iterated square root unscented Kalman filter for nonlinear states and parameters estimation: three DOF damped system. <i>Journal of Civil Structural Health Monitoring</i> , <b>2015</b> , 5, 493-508	2.9	22
15	A Study on Effective Mass of One Way Joist Supported Systems <b>2015</b> ,		10
14	Modal Parameter Variations due to Joist Bottom Chord Extension Installations on Laboratory Footbridges. <i>Journal of Performance of Constructed Facilities</i> , <b>2015</b> , 29, 04014140	2	10
13	Parameter identification for nonlinear biological phenomena modeled by S-systems <b>2015</b> ,		2
12	<b>2015</b> ,		4
11	Simplified Vibration Serviceability Evaluation of Slender Monumental Stairs. <i>Journal of Structural Engineering</i> , <b>2015</b> , 141, 04015017	3	27
10	Simplified Vibration Response Prediction for Slender Monumental Stairs <b>2014</b> ,		9
9	Vibrations Assessment of a Hospital Floor for a Magnetic Resonance Imaging Unit (MRI) Replacement <b>2013</b> ,		9
8	Fundamentals of Highway Bridge Demolition <b>2013</b> ,		3
7	Effect of Bottom Chord Extensions on the Static Flexural Stiffness of Open-Web Steel Joists. <i>Journal of Performance of Constructed Facilities</i> , <b>2012</b> , 26, 620-632	2	10
6	Retrofitting Steel Joist Supported Footbridges for Improved Vibration Response <b>2012</b> ,		10
5	Design of Experiments Study to Obtain a Robust 3D Computational Bridge Model. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2012</b> , 287-297	0.3	5
4	Vibration Testing of Joist Supported Footbridges <b>2010</b> ,		8
3	Effects of Bottom Chord Extensions on the Static and Dynamic Performance of Steel Joist Supported Floors <b>2008</b> ,		2
2	Observations from Vibration Testing of In-Situ Structures <b>2006</b> , 1		13

- 1 Web Crippling Strength of Steel Deck Subjected to End One Flange Loading. *Journal of Structural Engineering*, **2004**, 130, 697-707

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