

# Ayan Sadhu

## List of Publications by Year in descending order

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54  
papers

1,871  
citations

257101

24  
h-index

264894

42  
g-index

55  
all docs

55  
docs citations

55  
times ranked

1150  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multivariate empirical mode decomposition-based structural damage localization using limited sensors. <i>JVC/Journal of Vibration and Control</i> , 2022, 28, 2155-2167.	1.5	16
2	Vibration-based multiclass damage detection and localization using long short-term memory networks. <i>Structures</i> , 2022, 35, 436-451.	1.7	33
3	Multiclass Damage Identification in a Full-Scale Bridge Using Optimally Tuned One-Dimensional Convolutional Neural Network. <i>Journal of Computing in Civil Engineering</i> , 2022, 36, .	2.5	26
4	Investigation of climate change impacts on long-term care facility occupants. <i>City and Environment Interactions</i> , 2022, 13, 100077.	1.8	4
5	Acoustic emission-based damage localization using wavelet-assisted deep learning. <i>Journal of Infrastructure Preservation and Resilience</i> , 2022, 3, .	1.5	8
6	Road Condition Monitoring Using Smart Sensing and Artificial Intelligence: A Review. <i>Sensors</i> , 2022, 22, 3044.	2.1	48
7	Optimization of a Non-Traditional Vibration Absorber for Vibration Suppression and Energy Harvesting. <i>Vibration</i> , 2022, 5, 383-407.	0.9	2
8	LiDAR-Based Structural Health Monitoring: Applications in Civil Infrastructure Systems. <i>Sensors</i> , 2022, 22, 4610.	2.1	38
9	A hybrid time-frequency method for robust drive-by modal identification of bridges. <i>Engineering Structures</i> , 2022, 266, 114624.	2.6	14
10	Investigation of vibration data-based human load monitoring system. <i>Structural Health Monitoring</i> , 2021, 20, 791-803.	4.3	4
11	A systematic review of convolutional neural network-based structural condition assessment techniques. <i>Engineering Structures</i> , 2021, 226, 111347.	2.6	183
12	Time-frequency decomposition-assisted improved localization of proximity of damage using acoustic sensors. <i>Smart Materials and Structures</i> , 2021, 30, 025021.	1.8	12
13	Experimental and numerical investigation of tensile properties of early-age masonry. <i>Materials and Structures/Materiaux Et Constructions</i> , 2021, 54, 1.	1.3	3
14	Monitoring the strength properties of electrokinetically treated soil by bender elements to determine the treatment period. <i>Soils and Foundations</i> , 2021, 61, 675-691.	1.3	3
15	An improved time-varying empirical mode decomposition for structural condition assessment using limited sensors. <i>Engineering Structures</i> , 2021, 232, 111882.	2.6	35
16	Limited sensor-based bridge condition assessment using vehicle-induced nonstationary measurements. <i>Structures</i> , 2021, 32, 1207-1220.	1.7	10
17	Dynamic Multimodal Response of Bender Element Transmitter. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021, 147, .	1.5	5
18	Comparison of Time-Domain and Time-Frequency-Domain System Identification Methods on Tall Building Data with Noise. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2021, , 179-184.	0.3	1

#	ARTICLE	IF	CITATIONS
19	Toward Compressed Sensing of Structural Monitoring Data Using Discrete Cosine Transform. Journal of Computing in Civil Engineering, 2020, 34, .	2.5	20
20	Synchrosqueezing transform-based identification of time-varying structural systems using multi-sensor data. Journal of Sound and Vibration, 2020, 486, 115576.	2.1	22
21	Empirical mode decomposition and its variants: a review with applications in structural health monitoring. Smart Materials and Structures, 2020, 29, 093001.	1.8	90
22	A Comparison of Time-Frequency Methods for Real-Time Application to High-Rate Dynamic Systems. Vibration, 2020, 3, 204-216.	0.9	22
23	System Identification-Enhanced Visualization Tool for Infrastructure Monitoring and Maintenance. Frontiers in Built Environment, 2020, 6, .	1.2	18
24	Evaluation of progressive damage in structures using tensor decomposition-based wavelet analysis. JVC/Journal of Vibration and Control, 2019, 25, 2595-2610.	1.5	16
25	Multicomponent energy assessment of buildings using building information modeling. Sustainable Cities and Society, 2019, 49, 101603.	5.1	39
26	Improved visualization of infrastructure monitoring data using building information modeling. Structure and Infrastructure Engineering, 2019, 15, 1247-1263.	2.0	52
27	Decentralized modal identification of structures using an adaptive empirical mode decomposition method. Journal of Sound and Vibration, 2019, 447, 20-41.	2.1	27
28	A literature review of next-generation smart sensing technology in structural health monitoring. Structural Control and Health Monitoring, 2019, 26, e2321.	1.9	336
29	Multisensor-based hybrid empirical mode decomposition method towards system identification of structures. Structural Control and Health Monitoring, 2018, 25, e2147.	1.9	24
30	Simultaneous vibration suppression and energy harvesting with a non-traditional vibration absorber. Journal of Intelligent Material Systems and Structures, 2018, 29, 1748-1763.	1.4	30
31	Initial service life data towards structural health monitoring of a concrete arch dam. Structural Control and Health Monitoring, 2018, 25, e2036.	1.9	57
32	Condition assessment of structure with tuned mass damper using empirical wavelet transform. JVC/Journal of Vibration and Control, 2018, 24, 4850-4867.	1.5	23
33	Fault detection of gearboxes using synchro-squeezing transform. JVC/Journal of Vibration and Control, 2017, 23, 3108-3127.	1.5	8
34	An integrated multivariate empirical mode decomposition method towards modal identification of structures. JVC/Journal of Vibration and Control, 2017, 23, 2727-2741.	1.5	28
35	A hybrid hidden Markov model towards fault detection of rotating components. JVC/Journal of Vibration and Control, 2017, 23, 3175-3195.	1.5	19
36	Modelling and testing of a historic steel suspension footbridge in Ireland. Proceedings of the Institution of Civil Engineers: Bridge Engineering, 2017, 170, 116-132.	0.3	10

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37	Performance of tensor decomposition-based modal identification under nonstationary vibration. <i>Smart Materials and Structures</i> , 2017, 26, 035024.	1.8	15
38	A review of output-only structural mode identification literature employing blind source separation methods. <i>Mechanical Systems and Signal Processing</i> , 2017, 94, 415-431.	4.4	126
39	Blind source separation-based optimum sensor placement strategy for structures. <i>Journal of Civil Structural Health Monitoring</i> , 2017, 7, 445-458.	2.0	8
40	Towards damage detection using blind source separation integrated with time-varying auto-regressive modeling. <i>Smart Materials and Structures</i> , 2016, 25, 015013.	1.8	31
41	Ambient modal identification using multi-rank parallel factor decomposition. <i>Structural Control and Health Monitoring</i> , 2015, 22, 595-614.	1.9	25
42	Blind Source Separation: A Generalized Modal Identification Tool for Civil Structures. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2015, , 39-47.	0.3	2
43	Decentralized Modal Identification of a Pony Truss Pedestrian Bridge Using Wireless Sensors. <i>Journal of Bridge Engineering</i> , 2014, 19, .	1.4	20
44	A decentralized blind source separation algorithm for ambient modal identification in the presence of narrowband disturbances. <i>Structural Control and Health Monitoring</i> , 2014, 21, 282-302.	1.9	26
45	Ambient modal identification of structures equipped with tuned mass dampers using parallel factor blind source separation. <i>Smart Structures and Systems</i> , 2014, 13, 257-280.	1.9	15
46	Output-only de-tuning assessment of tuned mass dampers. <i>Journal of Civil Structural Health Monitoring</i> , 2013, 3, 33-48.	2.0	9
47	Decentralized modal identification of structures using parallel factor decomposition and sparse blind source separation. <i>Mechanical Systems and Signal Processing</i> , 2013, 41, 396-419.	4.4	57
48	A Novel Damage Detection Algorithm using Time-Series Analysis-Based Blind Source Separation. <i>Shock and Vibration</i> , 2013, 20, 423-438.	0.3	29
49	Underdetermined Blind Identification of Structures by Using the Modified Cross-Correlation Method. <i>Journal of Engineering Mechanics - ASCE</i> , 2012, 138, 327-337.	1.6	45
50	Blind identification of earthquake-excited structures. <i>Smart Materials and Structures</i> , 2012, 21, 045019.	1.8	27
51	Blind source separation towards decentralized modal identification using compressive sampling. , 2012, , .		7
52	Hybrid Time-Frequency Blind Source Separation Towards Ambient System Identification of Structures. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2012, 27, 314-332.	6.3	75
53	Decentralized modal identification using sparse blind source separation. <i>Smart Materials and Structures</i> , 2011, 20, 125009.	1.8	33
54	Re-tuning tuned mass dampers using ambient vibration measurements. <i>Smart Materials and Structures</i> , 2010, 19, 115002.	1.8	35