

# Mohammad A Al-Shudeifat

## List of Publications by Year in descending order

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Version: 2024-02-01

78  
papers

1,881  
citations

257450  
24  
h-index

265206  
42  
g-index

81  
all docs

81  
docs citations

81  
times ranked

615  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly efficient nonlinear energy sink. <i>Nonlinear Dynamics</i> , 2014, 76, 1905-1920.	5.2	161
2	New breathing functions for the transverse breathing crack of the cracked rotor system: Approach for critical and subcritical harmonic analysis. <i>Journal of Sound and Vibration</i> , 2011, 330, 526-544.	3.9	138
3	Numerical and experimental investigation of a highly effective single-sided vibro-impact non-linear energy sink for shock mitigation. <i>International Journal of Non-Linear Mechanics</i> , 2013, 52, 96-109.	2.6	133
4	Resonance captures and targeted energy transfers in an inertially-coupled rotational nonlinear energy sink. <i>Nonlinear Dynamics</i> , 2012, 69, 1693-1704.	5.2	125
5	Passive damping enhancement of a two-degree-of-freedom system through a strongly nonlinear two-degree-of-freedom attachment. <i>Journal of Sound and Vibration</i> , 2012, 331, 5393-5407.	3.9	89
6	General harmonic balance solution of a cracked rotor-bearing-disk system for harmonic and sub-harmonic analysis: Analytical and experimental approach. <i>International Journal of Engineering Science</i> , 2010, 48, 921-935.	5.0	80
7	On the finite element modeling of the asymmetric cracked rotor. <i>Journal of Sound and Vibration</i> , 2013, 332, 2795-2807.	3.9	77
8	Vibration reduction in unbalanced hollow rotor systems with nonlinear energy sinks. <i>Nonlinear Dynamics</i> , 2015, 79, 527-538.	5.2	76
9	Application of empirical mode decomposition to a Jeffcott rotor with a breathing crack. <i>Journal of Sound and Vibration</i> , 2013, 332, 3881-3892.	3.9	72
10	Numerical and experimental investigations of a rotating nonlinear energy sink. <i>Meccanica</i> , 2017, 52, 763-779.	2.0	72
11	Experimental Testing and Numerical Simulation of a Six-Story Structure Incorporating Two-Degree-of-Freedom Nonlinear Energy Sink. <i>Journal of Structural Engineering</i> , 2014, 140, .	3.4	62
12	Experimental study of new refrigerant mixtures to replace R12 in domestic refrigerators. <i>Applied Thermal Engineering</i> , 2002, 22, 495-506.	6.0	60
13	Asymmetric Magnet-Based Nonlinear Energy Sink. <i>Journal of Computational and Nonlinear Dynamics</i> , 2015, 10, .	1.2	52
14	Stability analysis and backward whirl investigation of cracked rotors with time-varying stiffness. <i>Journal of Sound and Vibration</i> , 2015, 348, 365-380.	3.9	49
15	Rotary-oscillatory nonlinear energy sink of robust performance. <i>International Journal of Non-Linear Mechanics</i> , 2019, 117, 103249.	2.6	48
16	Stability analysis for transverse breathing cracks in rotor systems. <i>European Journal of Mechanics, A/Solids</i> , 2013, 42, 27-34.	3.7	46
17	Alternation of regular and chaotic dynamics in a simple two-degree-of-freedom system with nonlinear inertial coupling. <i>Chaos</i> , 2012, 22, 013118.	2.5	43
18	Shock Mitigation by Means of Low- to High-Frequency Nonlinear Targeted Energy Transfers in a Large-Scale Structure. <i>Journal of Computational and Nonlinear Dynamics</i> , 2016, 11, .	1.2	40

#	ARTICLE	IF	CITATIONS
19	Rotary-impact nonlinear energy sink for shock mitigation: analytical and numerical investigations. Archive of Applied Mechanics, 2020, 90, 495-521.	2.2	36
20	Realization of a Strongly Nonlinear Vibration-Mitigation Device Using Elastomeric Bumpers. Journal of Engineering Mechanics - ASCE, 2014, 140, .	2.9	33
21	Interactions of propagating waves in a one-dimensional chain of linear oscillators with a strongly nonlinear local attachment. Meccanica, 2014, 49, 2375-2397.	2.0	32
22	Comparison of a modified vibro-impact nonlinear energy sink with other kinds of NESs. Meccanica, 2021, 56, 735-752.	2.0	32
23	Nonlinear Energy Sinks With Nontraditional Kinds of Nonlinear Restoring Forces. Journal of Vibration and Acoustics, Transactions of the ASME, 2017, 139, .	1.6	28
24	New backward whirl phenomena in intact and cracked rotor systems. Journal of Sound and Vibration, 2019, 443, 124-138.	3.9	28
25	Frequency–energy plot and targeted energy transfer analysis of coupled bistable nonlinear energy sink with linear oscillator. Nonlinear Dynamics, 2021, 105, 2877-2898.	5.2	24
26	Equivalent modal damping, stiffening and energy exchanges in multi-degree-of-freedom systems with strongly nonlinear attachments. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2012, 226, 122-146.	0.8	20
27	Combustion of waste trap grease oil in gas turbine generator. Fuel, 2010, 89, 549-553.	6.4	19
28	Amplitudes Decay in Different Kinds of Nonlinear Oscillators. Journal of Vibration and Acoustics, Transactions of the ASME, 2015, 137, .	1.6	18
29	Order reduction of forced nonlinear systems using updated LELSM modes with new Ritz vectors. Nonlinear Dynamics, 2010, 62, 821-840.	5.2	15
30	Analytical formulas for the energy, velocity and displacement decays of purely nonlinear damped oscillators. JVC/Journal of Vibration and Control, 2015, 21, 1210-1219.	2.6	15
31	Two-dimensional nonlinear energy sink for effective passive seismic mitigation. Communications in Nonlinear Science and Numerical Simulation, 2021, 99, 105787.	3.3	14
32	Nonlinear Energy Sinks With Piecewise-Linear Nonlinearities. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	1.2	14
33	On the dynamics of a beam with switching crack and damaged boundaries. JVC/Journal of Vibration and Control, 2013, 19, 30-46.	2.6	13
34	Effect of Unbalance Force Vector Orientation on the Whirl Response of Cracked Rotors. Journal of Vibration and Acoustics, Transactions of the ASME, 2019, 141, .	1.6	12
35	Time-varying stiffness method for extracting the frequency–energy dependence in the nonlinear dynamical systems. Nonlinear Dynamics, 2017, 89, 1463-1474.	5.2	10
36	Periodic Motion and Frequency Energy Plots of Dynamical Systems Coupled With Piecewise Nonlinear Energy Sink. Journal of Computational and Nonlinear Dynamics, 2022, 17, .	1.2	10

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37	On the Modeling of Open and Breathing Cracks of a Cracked Rotor System. , 2010, , .		9
38	An efficient mode-based alternative to principal orthogonal modes in the order reduction of structural dynamic systems with grounded nonlinearities. Mechanical Systems and Signal Processing, 2011, 25, 1527-1549.	8.0	9
39	Post-resonance backward whirl in accelerating cracked rotor systems. European Journal of Mechanics, A/Solids, 2020, 83, 104039.	3.7	7
40	Frequency-Energy Dependence of the Bistable Nonlinear Energy Sink. , 2017, , .		6
41	On post-resonance backward whirl in an overhung rotor with snubbing contact. Nonlinear Dynamics, 2020, 101, 741-754.	5.2	6
42	Impact of non-synchronous whirl on post-resonance backward whirl in vertical cracked rotors. Journal of Sound and Vibration, 2022, 520, 116605.	3.9	6
43	Use of Nonlinear Vibration Frequencies and Electrical Conductivity Measurements in the Separation of Internal and Boundary Damage in Structures. , 2008, , .		5
44	Modal damping variations in nonlinear dynamical systems. Nonlinear Dynamics, 2018, 93, 2565-2578.	5.2	5
45	Simulation and Testing of a 6-Story Structure Incorporating a Coupled Two Mass Nonlinear Energy Sink. , 2012, , .		4
46	Negative potential energy content analysis in cracked rotors whirl response. Scientific Reports, 2021, 11, 15294.	3.3	3
47	Breathing Crack Model Effect on Rotor's Postresonance Backward Whirl. Journal of Computational and Nonlinear Dynamics, 2020, 15, .	1.2	3
48	Post-resonance backward whirl analysis in cracked overhung rotors. Scientific Reports, 2022, 12, .	3.3	3
49	Piecewise Nonlinear Energy Sink. , 2015, , .		2
50	A New Type of NES: Rotary Vibro-Impact. , 2017, , .		2
51	Vibration Suppression in Two-Dimensional Oscillation Dynamical Systems. , 2018, , .		2
52	Application of the Proper Orthogonal Decomposition Method for Cracked Rotors. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	1.2	2
53	Effect of Negative Stiffness Content on the Periodic Motion of Nonlinearly Coupled Oscillators. Journal of Computational and Nonlinear Dynamics, 2021, 16, .	1.2	2
54	Numerical and Experimental Investigation of a New Nonlinear Energy Sink for Passive Shock Mitigation. , 2012, , .		1

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55	Experimental Investigation of a Rotational Nonlinear Energy Sink for Shock Mitigation. , 2014, , .		1
56	Amplitudes Decay in the Nonlinear Oscillators of Mixed Linear and Cubic Stiffness Components. , 2014, , .		1
57	Enhanced Rotating Nonlinear Energy Sink. , 2016, , .		1
58	Analytical Treatment for Bistable Nonlinearly Coupled Oscillators. , 2017, , .		1
59	Effect of Unbalance Force Direction on a Cracked Rotor Whirl Response. , 2017, , .		1
60	Negative Effective Stiffness Content in Cracked Rotors. , 2018, , .		1
61	Effect of Angular Acceleration and Unbalance Force Orientation on the Backward Whirl in Cracked Rotors. , 2018, , .		1
62	Numerical Investigation of Rotating Nonlinear Energy Sink for Shock Mitigation. , 2013, , .		0
63	Incoming Stall Identification in Axial Compressors by Vibration Analysis. , 2013, , .		0
64	Nonlinear Response of CNT Cantilever Based Nano-Resonators. , 2013, , .		0
65	New Design of Magnetic Nonlinear Energy Sink for Shock Mitigation in Dynamic Structures. , 2013, , .		0
66	Approach for Stability Analysis of a Cracked Rotor With Time-Varying Stiffness. , 2013, , .		0
67	Localization Phenomena of Nonlinear Vibrations in Three-Blade Wind Turbines. , 2013, , .		0
68	Time-Varying Frequency Formula for the Purely Nonlinear Damped Oscillator. , 2014, , .		0
69	Analytical Solution of Two Coupled Oscillators With a Nonlinear Coupling Resorting Force. , 2014, , .		0
70	Shock Mitigation by Energy Reversal to the High Frequency Modes. , 2014, , .		0
71	Nonlinear Energy Sink With a Non-Traditional Kind of Nonlinear Restoring Force. , 2015, , .		0
72	Amplitude-Dependent Stiffness Method for Studying Frequency and Damping Variations in Nonlinear Dynamical Systems. , 2017, , .		0

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73	Application of the POD Method for Cracked Rotors. , 2017, , .		0
74	Modal Damping and Frequency Variations in Nonlinearly Coupled Oscillators With Negative Linear Stiffness Components. , 2018, , .		0
75	Energy redistribution using cubic nonlinear energy sink in a large-scale structure. AIP Conference Proceedings, 2019, , .	0.4	0
76	Enhanced Order Reduction of Forced Nonlinear Systems Using New Ritz Vectors. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 41-52.	0.5	0
77	Full Spectrum Analysis for Studying the Backward Whirl in Accelerated Rotor Systems. Springer Proceedings in Mathematics and Statistics, 2021, , 37-47.	0.2	0
78	A Study on the Coefficient of Restitution Effect on Single-Sided Vibro-Impact Nonlinear Energy Sink. Springer Proceedings in Mathematics and Statistics, 2021, , 287-296.	0.2	0