

# Davood Younesian

## List of Publications by Year in descending order

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141  
papers

2,434  
citations

201385

27  
h-index

253896

43  
g-index

142  
all docs

142  
docs citations

142  
times ranked

1478  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-stable mechanisms for high-efficiency and broadband ocean wave energy harvesting. <i>Applied Energy</i> , 2017, 197, 292-302.	5.1	150
2	Dynamics of Timoshenko beams on Pasternak foundation under moving load. <i>Mechanics Research Communications</i> , 2004, 31, 713-723.	1.0	130
3	Response of beams on nonlinear viscoelastic foundations to harmonic moving loads. <i>Computers and Structures</i> , 2005, 83, 1865-1877.	2.4	125
4	Frequency analysis of strongly nonlinear generalized Duffing oscillators using Heâ€™s frequencyâ€“amplitude formulation and Heâ€™s energy balance method. <i>Computers and Mathematics With Applications</i> , 2010, 59, 3222-3228.	1.4	111
5	Elastic and viscoelastic foundations: a review on linear and nonlinear vibration modeling and applications. <i>Nonlinear Dynamics</i> , 2019, 97, 853-895.	2.7	101
6	Sound and vibration energy harvesting for railway applications: A review on linear and nonlinear techniques. <i>Energy Reports</i> , 2021, 7, 852-874.	2.5	62
7	Enhancement of the low-frequency acoustic energy harvesting with auxetic resonators. <i>Applied Energy</i> , 2020, 270, 115217.	5.1	57
8	Existence of Periodic Solutions for the Generalized Form of Mathieu Equation. <i>Nonlinear Dynamics</i> , 2005, 39, 335-348.	2.7	55
9	Internal-external resonance of beams on non-linear viscoelastic foundation traversed by moving load. <i>Nonlinear Dynamics</i> , 2010, 61, 163-182.	2.7	55
10	Ride comfort of high-speed trains travelling over railway bridges. <i>Vehicle System Dynamics</i> , 2005, 43, 173-197.	2.2	53
11	Frequency analysis of finite beams on nonlinear Kelvinâ€“Voight foundation under moving loads. <i>Journal of Sound and Vibration</i> , 2011, 330, 1455-1471.	2.1	51
12	Enhancement of piezoelectric vibration energy harvesting with auxetic boosters. <i>International Journal of Energy Research</i> , 2020, 44, 1179-1190.	2.2	51
13	Study in circular auxetic structures for efficiency enhancement in piezoelectric vibration energy harvesting. <i>Scientific Reports</i> , 2020, 10, 16338.	1.6	51
14	Longitudinal dynamics of freight trains. <i>International Journal of Heavy Vehicle Systems</i> , 2009, 16, 102.	0.1	50
15	Parametrically Excited Vibration of a Timoshenko Beam on Random Viscoelastic Foundation jected to a Harmonic Moving Load. <i>Nonlinear Dynamics</i> , 2006, 45, 75-93.	2.7	43
16	Primary and secondary resonance analyses of clampedâ€“clamped micro-beams. <i>Nonlinear Dynamics</i> , 2014, 76, 1867-1884.	2.7	41
17	Non-linear vibration of variable speed rotating viscoelastic beams. <i>Nonlinear Dynamics</i> , 2010, 60, 193-205.	2.7	40
18	A High Accuracy Imaging and Measurement System for Wheel Diameter Inspection of Railroad Vehicles. <i>IEEE Transactions on Industrial Electronics</i> , 2018, 65, 8239-8249.	5.2	40

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19	Approximate periodic solutions for the Helmholtz–Duffing equation. <i>Computers and Mathematics With Applications</i> , 2011, 62, 3894-3901.	1.4	39
20	Nonlinear dynamics of an inclined beam subjected to a moving load. <i>Nonlinear Dynamics</i> , 2010, 60, 277-293.	2.7	38
21	Nonlinear free vibration analysis of a plate-cavity system. <i>Thin-Walled Structures</i> , 2014, 74, 191-200.	2.7	37
22	Nonlinear vibration analysis of fluid-conveying microtubes. <i>Nonlinear Dynamics</i> , 2016, 85, 1007-1021.	2.7	36
23	Novel cross shape phononic crystals with broadband vibration wave attenuation characteristic: Design, modeling and testing. <i>Thin-Walled Structures</i> , 2021, 163, 107665.	2.7	34
24	Vibration suppression of rotating beams using time-varying internal tensile force. <i>Journal of Sound and Vibration</i> , 2011, 330, 308-320.	2.1	33
25	Asymptotic solutions and stability analysis for generalized non-homogeneous Mathieu equation. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2007, 12, 58-71.	1.7	31
26	Multi-frequency excitation of stiffened triangular plates for large amplitude oscillations. <i>Journal of Sound and Vibration</i> , 2014, 333, 5817-5835.	2.1	30
27	Response of the beams on random Pasternak foundations subjected to harmonic moving loads. <i>Journal of Mechanical Science and Technology</i> , 2009, 23, 3013-3023.	0.7	29
28	Enhancement of the vibro-acoustic performance of anti-tetra-chiral auxetic sandwich panels using topologically optimized local resonators. <i>Applied Acoustics</i> , 2021, 177, 107930.	1.7	29
29	Analytical approximate solutions for the generalized nonlinear oscillator. <i>Applicable Analysis</i> , 2012, 91, 965-977.	0.6	28
30	Nonlinear harmonic vibration and stability analysis of a cantilever beam carrying an intermediate lumped mass. <i>Nonlinear Dynamics</i> , 2016, 84, 1667-1682.	2.7	28
31	Passive Vibration Control of Beams Subjected to Random Excitations with Peaked PSD. <i>JVC/Journal of Vibration and Control</i> , 2006, 12, 941-953.	1.5	27
32	Performance Analysis of Multiple Trenches in Train-Induced Wave Mitigation. <i>Journal of Low Frequency Noise Vibration and Active Control</i> , 2014, 33, 47-63.	1.3	26
33	Nonlinear vibration analysis of harmonically excited cracked beams on viscoelastic foundations. <i>Nonlinear Dynamics</i> , 2013, 71, 109-120.	2.7	24
34	Nonlocal effect in carbon nanotube resonators: A comprehensive review. <i>Advances in Mechanical Engineering</i> , 2017, 9, 168781401668692.	0.8	24
35	Dynamic analysis of a partially filled tanker train travelling on a curved track. <i>International Journal of Heavy Vehicle Systems</i> , 2010, 17, 331.	0.1	22
36	Vibroacoustic analysis of a sandwich panel coupled with an enclosure cavity. <i>Composite Structures</i> , 2016, 146, 159-175.	3.1	22

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37	Dynamic Analysis of a Plate on the Generalized Foundation with Fractional Damping Subjected to Random Excitation. <i>Mathematical Problems in Engineering</i> , 2018, 2018, 1-10.	0.6	22
38	Auxetic clamped-clamped resonators for high-efficiency vibration energy harvesting at low-frequency excitation. <i>Applied Energy</i> , 2021, 295, 117010.	5.1	22
39	Analytical solution for nonlinear wave propagation in shallow media using the variational iteration method. <i>Waves in Random and Complex Media</i> , 2012, 22, 133-142.	1.6	20
40	Nonlinear harmonic vibration analysis of a plate-cavity system. <i>Nonlinear Dynamics</i> , 2013, 74, 1267-1279.	2.7	20
41	Vibration suppression of curved beams traversed by off-center moving loads. <i>Journal of Sound and Vibration</i> , 2015, 352, 1-15.	2.1	19
42	Chaotic vibrations of beams on nonlinear elastic foundations subjected to reciprocating loads. <i>Mechanics Research Communications</i> , 2015, 69, 121-128.	1.0	19
43	Frequency analysis of the nonlinear viscoelastic plates subjected to subsonic flow and external loads. <i>Thin-Walled Structures</i> , 2015, 92, 65-75.	2.7	19
44	A new methodology in fast and accurate matching of the 2D and 3D point clouds extracted by laser scanner systems. <i>Optics and Laser Technology</i> , 2015, 66, 28-34.	2.2	18
45	Chaos prediction in nonlinear viscoelastic plates subjected to subsonic flow and external load using extended Melnikov's method. <i>Nonlinear Dynamics</i> , 2016, 84, 1163-1179.	2.7	17
46	Analytical Methods in Nonlinear Oscillations. <i>Solid Mechanics and Its Applications</i> , 2019, , .	0.1	17
47	Periodic Solutions for the Generalized Nonlinear Oscillators containing Fraction Order Elastic Force. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2010, 11, .	0.4	16
48	Nonlinear vibration analysis of isotropic plate with inclined part-through surface crack. <i>Nonlinear Dynamics</i> , 2014, 78, 2377-2397.	2.7	16
49	Application of a Bayesian algorithm for the Statistical Energy model updating of a railway coach. <i>Applied Acoustics</i> , 2016, 112, 84-107.	1.7	16
50	Application of an optimal wavelet transformation for rail-fastening system identification in different preloads. <i>Measurement: Journal of the International Measurement Confederation</i> , 2016, 82, 161-175.	2.5	16
51	Effects of the trench geometry on vibration mitigation level in high-speed railway tracks. <i>Journal of Mechanical Science and Technology</i> , 2012, 26, 2469-2476.	0.7	14
52	Vibro-acoustic analysis of a coach platform under random excitation. <i>Thin-Walled Structures</i> , 2015, 95, 287-296.	2.7	14
53	Vibro-Acoustic Analysis and Topology Optimization of Anti-Tetra Chiral Auxetic Lattices Driven by Different Colored Noises. <i>International Journal of Structural Stability and Dynamics</i> , 2020, 20, 2050113.	1.5	14
54	Nonlinear Oscillations Analysis of the Elevator Cable in a Drum Drive Elevator System. <i>Advances in Applied Mathematics and Mechanics</i> , 2015, 7, 43-57.	0.7	13

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55	Defected meta-lattice structures for the enhanced localized vibrational energy harvesting. <i>Nano Energy</i> , 2022, 100, 107488.	8.2	13
56	Importance of flexural mode shapes in dynamic analysis of high-speed trains traveling on bridges. <i>JVC/Journal of Vibration and Control</i> , 2014, 20, 1565-1583.	1.5	12
57	Broad-Band Noise Mitigation in Vibrating Annular Plates by Dynamic Absorbers. <i>International Journal of Structural Stability and Dynamics</i> , 2016, 16, 1550014.	1.5	12
58	3D transient elasto-plastic finite element analysis of a flatted railway wheel in rolling contact. <i>Mechanics Based Design of Structures and Machines</i> , 2018, 46, 751-766.	3.4	11
59	Bayesian framework for simultaneous input/state estimation in structural and mechanical systems. <i>Structural Control and Health Monitoring</i> , 2019, 26, e2379.	1.9	11
60	A High Accuracy and High Speed Imaging and Measurement System for Rail Corrugation Inspection. <i>IEEE Transactions on Industrial Electronics</i> , 2021, 68, 8894-8903.	5.2	10
61	Optimal passive vibration control of Timoshenko beams with arbitrary boundary conditions traversed by moving loads. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2008, 222, 179-188.	0.5	9
62	Optimized T-Shape and Y-Shape Inclined Sound Barriers for Railway Noise Mitigation. <i>Journal of Low Frequency Noise Vibration and Active Control</i> , 2014, 33, 357-370.	1.3	9
63	Vibration analysis of circular annular plates subjected to peripheral rotating transverse loads. <i>JVC/Journal of Vibration and Control</i> , 2015, 21, 1443-1455.	1.5	9
64	A new methodology for the estimation of wheel-rail contact forces at a high-frequency range. <i>Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit</i> , 2018, 232, 2353-2370.	1.3	9
65	Interaction of surface waves with an actuated submerged flexible plate: Optimization for wave energy extraction. <i>Journal of Fluids and Structures</i> , 2018, 81, 673-692.	1.5	9
66	Full-Gradient Optimization of the Vibroacoustic Performance of (Non-)auxetic Sandwich Panels. <i>Transport in Porous Media</i> , 2022, 142, 139-156.	1.2	9
67	Bistable wind-induced vibration energy harvester for self-powered wireless sensors in smart bridge monitoring systems. , 2019, , .		9
68	Nonlinear Vibration and Comfort Analysis of High-Speed Trains Moving Over Railway Bridges. , 2004, , 237.		8
69	Design and simulation of a magnetohydrodynamic micro-pump to provide time varying tensile force for vibration suppression in viscoelastic micro-beams. <i>Journal of Mechanical Science and Technology</i> , 2019, 33, 2149-2159.	0.7	8
70	A novel low-frequency multi-bandgaps metaplate: Genetic algorithm based optimization and experimental validation. <i>Mechanical Systems and Signal Processing</i> , 2022, 181, 109495.	4.4	8
71	Optimal placement of active bars in smart structures. , 0, , .		7
72	Fatigue life estimation of MD36 and MD523 bogies based on damage accumulation and random fatigue theory. <i>Journal of Mechanical Science and Technology</i> , 2009, 23, 2149-2156.	0.7	7

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73	NONLINEAR VIBRATION OF A THREE-DIMENSIONAL MOVING GANTRY CRANE SUBJECTED TO A TRAVELLING TROLLEY HOISTING A SWINGING OBJECT. Transactions of the Canadian Society for Mechanical Engineering, 2010, 34, 333-350.	0.3	7
74	Optimal strain gauge placement in instrumented wheelset for measuring wheel-rail contact forces. International Journal of Precision Engineering and Manufacturing, 2017, 18, 1519-1527.	1.1	7
75	Vibro-acoustic numerical analysis for the geometrically nonlinear viscoelastic rectangular plate subjected to subsonic compressible airflow. Applied Acoustics, 2021, 174, 107779.	1.7	7
76	Forced Vibration Analysis of Spinning Disks Subjected to Transverse Loads. International Journal of Structural Stability and Dynamics, 2015, 15, 1450049.	1.5	6
77	Vibration suppression of atomic-force microscopy cantilevers covered by a piezoelectric layer with tensile force. Journal of Mechanical Science and Technology, 2018, 32, 4135-4144.	0.7	6
78	Multi-resonance analysis of a viscoelastically supported orthotropic plate with an inclined crack. Nonlinear Dynamics, 2019, 96, 1717-1734.	2.7	6
79	Acoustic performance enhancement in a railway passenger carriage using hybrid ray-tracing and image-source method. Applied Acoustics, 2020, 170, 107527.	1.7	6
80	Application of the meta-substrates for power amplification in rotary piezoelectric energy harvesting systems: Design, fabrication and testing. Energy Reports, 2022, 8, 5653-5667.	2.5	6
81	Tangential force variation due to the bogie direction reversal procedure. Vehicle System Dynamics, 2007, 45, 359-373.	2.2	5
82	Application of the Nonlinear Energy Sink Systems in Vibration Suppression of Railway Bridges. , 2010, , .		5
83	Vibro-Acoustic Analysis of the Railway Tracks with Fractional Railpads and Nonlinear Ballast. International Journal of Structural Stability and Dynamics, 2017, 17, 1750105.	1.5	5
84	A new flexible laser beam profiler for the inspection of train wheels. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2021, 235, 215-225.	1.3	5
85	Vibro-acoustic response analysis of fractional railpads in frequency domain. Mechanics Based Design of Structures and Machines, 2021, 49, 286-303.	3.4	5
86	Nonlinear vibrations of an inclined beam subjected to a moving load. Journal of Physics: Conference Series, 2009, 181, 012094.	0.3	4
87	Analytical Solutions for Nonlinear Lateral Sloshing in Partially-Filled Elliptical Tankers. , 2011, , .		4
88	Suppression of Train Wheel Squeal Noise by Shunted Piezoelectric Elements. International Journal of Structural Stability and Dynamics, 2017, 17, 1750027.	1.5	4
89	Interaction of Higher Modes in Nonlinear Free Vibration of Stiffened Rectangular Plates. , 2017, , .		4
90	Modeling temperature evolution of wheel flat during formation. International Journal of Thermal Sciences, 2019, 140, 114-126.	2.6	4

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91	Spectral Optimization of High-Speed Train Suspension Systems. International Journal of Vehicle Structures and Systems, 2009, 1, .	0.1	3
92	Large Amplitude Free Vibration Analysis of Nanotubes Using Variational and Homotopy Methods. , 2013, , .		3
93	Analytical Solution for the Sound Radiation Field of a Viscoelastically Supported Beam Traversed by a Moving Load. Shock and Vibration, 2014, 2014, 1-7.	0.3	3
94	Performance Analysis of Piezoelectric Actuators in Railway Wheel Squealing Noise Mitigation. Shock and Vibration, 2019, 2019, 1-13.	0.3	3
95	Inlay-inspired meta-piezoelectric plates for the low-frequency vibration energy harvesting. Journal of Materials Science: Materials in Electronics, 2022, 33, 2909-2920.	1.1	3
96	Response of a suspended cable to narrow-band random excitation with peaked P.S.D.. Mathematical and Computer Modelling, 2005, 41, 1203-1212.	2.0	2
97	Application of the Delayed Resonators in Active Suspension Systems of High-Speed Trains. , 2006, , 267.		2
98	Sensitivity Analysis of the Rectangular Trenches Employed in Suppression of the High-Speed Train-Induced Ground Vibrations. , 2010, , .		2
99	Dynamic analysis of composite beam subjected to harmonic moving load based on the third-order shear deformation theory. Frontiers of Mechanical Engineering, 2011, 6, 409-418.	2.5	2
100	Analytical Solutions for Oscillation of Rectangular Plate on a Nonlinear Winkler Foundation. , 2011, , .		2
101	Nonlinear Longitudinal Vibration Solutions of an Elastic Rod. , 2013, , .		2
102	Nonlinear free vibration analysis of a double-walled carbon nanotube. , 2014, , .		2
103	Dynamic Behavior of Carbon Nanotubes Using Nonlocal Rayleigh Beam. , 2014, , .		2
104	Chaos control for the plates subjected to subsonic flow. Regular and Chaotic Dynamics, 2016, 21, 437-454.	0.3	2
105	Analytical Formulation for Temperature Evolution in Flat Wheel-Rail Sliding Surfaces. Mathematical Problems in Engineering, 2018, 2018, 1-7.	0.6	2
106	A Novel Method for Laser Peak Detection with Subpixel Accuracy for the Rail Corrugation Measurement. Journal of Sensors, 2021, 2021, 1-16.	0.6	2
107	Internal Resonance of Finite Beams on Nonlinear Foundations Traversed by a Moving Load. , 2008, , .		2
108	Adaptive Key Frame Selection Wyner-Ziv Video Coding. , 2005, , .		1

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109	Ride Quality of High-Speed Trains Traveling Over the Corrugated Rails. , 2006, , 145.		1
110	Effects of the Load Distribution Patterns on the Longitudinal Freight Train Dynamics. , 2007, , 1019.		1
111	On-Track Measurement of Lateral/Vertical Wheel Loads of Running Railway Vehicles Based on the Neural Network. , 2008, , .		1
112	Nonlinear Free Vibration Analysis of a Fluid-Conveying Microtube. , 2014, , .		1
113	Novel control strategies for roll/pitch stabilization of tank wagons. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2016, 230, 151-164.	1.3	1
114	Dynamic Analysis of Nonlinear Elastically Supported von-Kármán Plates Subjected to Subsonic Flow. Procedia Engineering, 2017, 199, 765-771.	1.2	1
115	Approximate solution for acoustic scattering by a nonlinear composite beam. Nonlinear Dynamics, 2018, 93, 1407-1419.	2.7	1
116	Vibration Analysis of Oscillators with Generalized Inertial and Geometrical Nonlinearities. , 2018, , 147-166.		1
117	Semi-inverse and Variational Methods. Solid Mechanics and Its Applications, 2019, , 151-195.	0.1	1
118	Sound Radiation Mitigation of Geometrically Nonlinear Plates Subjected to Subsonic Airflow. Mathematical Problems in Engineering, 2021, 2021, 1-12.	0.6	1
119	Nonlinear vibration of laminated composite plates subjected to subsonic flow and external loads. Steel and Composite Structures, 2016, 22, 1261-1280.	1.3	1
120	Analytical Modeling of Transverse Vibrations and Acoustic Pressure Mitigation for Rotating Annular Disks. Mathematical Problems in Engineering, 2022, 2022, 1-17.	0.6	1
121	Passive Control of Vibration of Elastically Supported Beams Subjected to Moving Loads. , 2005, , 153.		0
122	Transition Curves for Nonhomogeneous Mathieu Equation. , 2005, , 243.		0
123	Effects of Coupler Specifications and Operational Conditions on the Longitudinal Freight Train Dynamics. , 2007, , 1279.		0
124	Random Fatigue Failure of MD36 and MD523 Bogie Frames Due to Rail Corrugations. , 2008, , .		0
125	Effects of Partially-Filled Containers in Dynamic Behavior of Tanker Trains Traveling on Curved Tracks. , 2008, , .		0
126	Application of Time-Increasing Internal Pressure in Vibration Reduction of Viscoelastic Rotary Beams. , 2010, , .		0



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127	Random Base Excitation of Timoshenko Beam Traversed by Moving Load. , 2011, , .		0
128	Large Amplitude Vibration Analysis of Shear Deformable FGM Cylindrical Shell. , 2012, , .		0
129	Nonlinear Vibration Analysis and Approximate Solution of Micro-Beams. , 2013, , .		0
130	Nonlinear Vibration Solutions of Nano-Beams Considering Surface Effects. , 2013, , .		0
131	Application of Variational Iteration Method in Nonlinear Free Vibration Analysis of Multi-Layered Nano-Scale Graphene Sheets. , 2014, , .		0
132	Nonlinear Forced Vibration of Carbon Nanotubes Considering Thermal Effects. , 2014, , .		0
133	Nonlinear Forced Vibration Analysis of Fluid Conveying Nanotubes Under Electromagnetic Actuation. , 2014, , .		0
134	Nonlinear Harmonic Vibration Analysis of a Fully Clamped Micro-Beam. , 2015, , .		0
135	Analytical Solutions for Nonlinear Free Vibration of Micro-Scale Timoshenko Beams. , 2016, , .		0
136	Classical Methods. Solid Mechanics and Its Applications, 2019, , 29-71.	0.1	0
137	Energy Balance Methods. Solid Mechanics and Its Applications, 2019, , 73-122.	0.1	0
138	Residual Methods. Solid Mechanics and Its Applications, 2019, , 123-150.	0.1	0
139	Integral Based Methods. Solid Mechanics and Its Applications, 2019, , 197-247.	0.1	0
140	Nonlinearities in Nano- and Microsystems. Solid Mechanics and Its Applications, 2019, , 249-286.	0.1	0
141	On the Placement of Active Bars and Optimal Feedback Gain in Random Adaptive Structures for Vibration Suppression. , 2005, , .		0