

Firooz Bakhtiari-Nejad

List of Publications by Year in descending order

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64
papers

1,378
citations

304743

22
h-index

377865

34
g-index

64
all docs

64
docs citations

64
times ranked

1050
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear vibrations of FGM rectangular plates in thermal environments. <i>Nonlinear Dynamics</i> , 2011, 66, 251-270.	5.2	120
2	Non-linear modal analysis of a rotating beam. <i>International Journal of Non-Linear Mechanics</i> , 2011, 46, 877-897.	2.6	69
3	Structural finite element model updating using transfer function data. <i>Computers and Structures</i> , 2010, 88, 54-64.	4.4	66
4	A geometrically exact approach to the overall dynamics of elastic rotating bladesâ€™ part 1: linear modal properties. <i>Nonlinear Dynamics</i> , 2012, 70, 659-675.	5.2	62
5	Sliding mode control of drum water level in an industrial boiler unit with time varying parameters: A comparison with H ∞ -robust control approach. <i>Journal of Process Control</i> , 2012, 22, 1844-1855.	3.3	52
6	Finite Element Model Updating Using Frequency Response Function of Incomplete Strain Data. <i>AIAA Journal</i> , 2010, 48, 1420-1433.	2.6	46
7	Nonlinear free and forced vibrations of fractional modeled viscoelastic FGM micro-beam. <i>Applied Mathematical Modelling</i> , 2021, 92, 297-314.	4.2	44
8	Theoretical and experimental structural damage diagnosis method using natural frequencies through an improved sensitivity equation. <i>International Journal of Mechanical Sciences</i> , 2013, 70, 79-89.	6.7	42
9	Nonlinear free vibration analysis of prestressed circular cylindrical shells on the Winkler/Pasternak foundation. <i>Thin-Walled Structures</i> , 2012, 53, 26-39.	5.3	40
10	Nonlinear multivariable control and performance analysis of an air-handling unit. <i>Energy and Buildings</i> , 2011, 43, 805-813.	6.7	38
11	Stability improvement and regenerative chatter suppression in nonlinear milling process via tunable vibration absorber. <i>Journal of Sound and Vibration</i> , 2012, 331, 4668-4690.	3.9	37
12	Free in-plane vibration analysis of rotating rectangular orthotropic cantilever plates. <i>International Journal of Mechanical Sciences</i> , 2016, 115-116, 438-456.	6.7	36
13	Robust control of an industrial boiler system; a comparison between two approaches: Sliding mode control & technique. <i>Energy Conversion and Management</i> , 2009, 50, 1401-1410.	9.2	35
14	Nonlinear vibration analysis of isotropic cantilever plate with viscoelastic laminate. <i>Nonlinear Dynamics</i> , 2009, 56, 325-356.	5.2	35
15	Nonlinear behaviour of the regenerative chatter in turning process with a worn tool: Forced oscillation and stability analysis. <i>Mechanism and Machine Theory</i> , 2010, 45, 1050-1066.	4.5	32
16	A geometrically exact approach to the overall dynamics of elastic rotating bladesâ€™ part 2: flapping nonlinear normal modes. <i>Nonlinear Dynamics</i> , 2012, 70, 2279-2301.	5.2	32
17	Analytical estimation of natural frequencies and mode shapes of a beam having two cracks. <i>International Journal of Mechanical Sciences</i> , 2014, 78, 193-202.	6.7	30
18	Preload effect on nonlinear dynamic behavior of a rigid rotor supported by noncircular gas-lubricated journal bearing systems. <i>Nonlinear Dynamics</i> , 2010, 60, 231-253.	5.2	28

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19	Nonlinear vibration of fractional viscoelastic micro-beams. <i>International Journal of Non-Linear Mechanics</i> , 2021, 137, 103811.	2.6	28
20	Nonlinear dynamic stability analysis of the coupled axial-torsional motion of the rotary drilling considering the effect of axial rigid-body dynamics. <i>International Journal of Non-Linear Mechanics</i> , 2017, 88, 85-96.	2.6	27
21	Multivariable robust control of an air-handling unit: A comparison between pole-placement and H ∞ controllers. <i>Energy Conversion and Management</i> , 2012, 55, 136-148.	9.2	25
22	Size-dependent dynamic modeling and vibration analysis of MEMS/NEMS-based nanomechanical beam based on the nonlocal elasticity theory. <i>Acta Mechanica</i> , 2016, 227, 1363-1379.	2.1	25
23	Improving boiler unit performance using an optimum robust minimum-order observer. <i>Energy Conversion and Management</i> , 2011, 52, 1728-1740.	9.2	23
24	Quasi-linear sensitivity-based structural model updating using experimental transfer functions. <i>Structural Health Monitoring</i> , 2012, 11, 656-670.	7.5	22
25	Cold start-up condition model for heat recovery steam generators. <i>Applied Thermal Engineering</i> , 2014, 65, 502-512.	6.0	22
26	Development of neural fractional order PID controller with emulator. <i>ISA Transactions</i> , 2020, 106, 293-302.	5.7	22
27	On the secondary resonance of a MEMS resonator: A conceptual study based on shooting and perturbation methods. <i>International Journal of Non-Linear Mechanics</i> , 2016, 82, 59-68.	2.6	21
28	Nonlinear dynamics of a functionally graded piezoelectric micro-resonator in the vicinity of the primary resonance. <i>JVC/Journal of Vibration and Control</i> , 2017, 23, 400-413.	2.6	21
29	Numerical analysis of a rigid rotor supported by aerodynamic four-lobe journal bearing system with mass unbalance. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2012, 17, 454-471.	3.3	20
30	Chaotic vibrations in high-speed milling. <i>Nonlinear Dynamics</i> , 2011, 66, 557-574.	5.2	17
31	Application of quadratic controller to control the pull-in instability of a micro-resonator. <i>International Journal of Mechanics and Materials in Design</i> , 2015, 11, 111-123.	3.0	17
32	A comparative study of nonlinear aeroelastic models for high aspect ratio wings. <i>Journal of Fluids and Structures</i> , 2019, 85, 249-274.	3.4	17
33	A reduced order of complete aeroelastic model for limit cycle oscillations. <i>Aerospace Science and Technology</i> , 2010, 14, 95-105.	4.8	15
34	Size-dependent free vibration of nano/microbeams with piezoelectric layered actuators. <i>Micro and Nano Letters</i> , 2015, 10, 93-98.	1.3	15
35	Damage detection of an aeroelastic panel using limit cycle oscillation analysis. <i>International Journal of Non-Linear Mechanics</i> , 2014, 58, 99-110.	2.6	14
36	Limit cycle oscillation control of wing with static output feedback control method. <i>Aerospace Science and Technology</i> , 2013, 24, 147-160.	4.8	13

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37	Thermo-electro-mechanical impedance based structural health monitoring of plates. <i>Composite Structures</i> , 2014, 116, 147-164.	5.8	13
38	Vibration characteristics of rotating orthotropic cantilever plates using analytical approaches: a comprehensive parametric study. <i>Archive of Applied Mechanics</i> , 2018, 88, 481-502.	2.2	13
39	Limit Cycle Oscillations of Swept-Back Trapezoidal Wings at Low Subsonic Flow. <i>Journal of Aircraft</i> , 2004, 41, 948-953.	2.4	11
40	A general formulation of quality factor for composite micro/nano beams in the air environment based on the nonlocal elasticity theory. <i>Composite Structures</i> , 2015, 132, 772-783.	5.8	11
41	A Study of the Roll Motion by Means of a Free Decay Test. <i>Journal of Offshore Mechanics and Arctic Engineering</i> , 2010, 132, .	1.2	10
42	Semi-analytical approach for free vibration analysis of cracked beams resting on two-parameter elastic foundation with elastically restrained ends. <i>Frontiers of Mechanical Engineering</i> , 2014, 9, 191-202.	4.3	10
43	Vibration of the rotating rectangular orthotropic Mindlin plates with an arbitrary stagger angle. <i>JVC/Journal of Vibration and Control</i> , 2019, 25, 1194-1209.	2.6	10
44	Fractional-order control with second-order sliding mode algorithm and disturbance estimation for vibration suppression of marine riser. <i>Journal of the Franklin Institute</i> , 2021, 358, 6545-6565.	3.4	10
45	Bifurcation boundary analysis as a nonlinear damage detection feature: does it work?. <i>Journal of Fluids and Structures</i> , 2011, 27, 297-310.	3.4	9
46	Discrete singular convolution and spectral finite element method for predicting electromechanical impedance applied on rectangular plates. <i>Journal of Intelligent Material Systems and Structures</i> , 2017, 28, 2473-2488.	2.5	9
47	Application of scaled boundary finite element method for vibration-based structural health monitoring of breathing cracks. <i>JVC/Journal of Vibration and Control</i> , 2021, 27, 2870-2886.	2.6	8
48	Tracking Control of an Underactuated Gantry Crane using an Optimal Feedback Controller. <i>International Journal of Automotive and Mechanical Engineering</i> , 2013, 7, 830-839.	0.9	7
49	Nonlinear random vibrations of micro-beams with fractional viscoelastic core. <i>Probabilistic Engineering Mechanics</i> , 2022, 69, 103274.	2.7	7
50	Modeling and dynamic study of rotating blades with adjustable stagger angle. <i>Applied Mathematical Modelling</i> , 2021, 89, 1599-1626.	4.2	6
51	On the combined Shooting-Pseudo-Arclength method for finding frequency response of nonlinear fractional-order differential equations. <i>Journal of Sound and Vibration</i> , 2022, 516, 116521.	3.9	6
52	Post-Yield characteristics of electrorheological fluids in nonlinear vibration analysis of smart sandwich panels. <i>Mechanics Based Design of Structures and Machines</i> , 2023, 51, 1944-1963.	4.7	5
53	Size-dependent nonlinear dynamic modeling and vibration analysis of piezo-laminated nanomechanical resonators using perturbation method. <i>Archive of Applied Mechanics</i> , 2020, 90, 1659-1672.	2.2	4
54	Aeroelastic analysis of cantilever plates using Petersâ€™ aerodynamic model, and the influence of choosing beam or plate theories as the structural model. <i>Journal of Fluids and Structures</i> , 2020, 96, 103010.	3.4	4

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55	Fourier spectral element for simulation of vibro-acoustic modulation caused by contact nonlinearity in the beam. <i>Thin-Walled Structures</i> , 2022, 174, 109112.	5.3	4
56	A comparative study between linear and sliding mode adaptive controllers for a hot gas generator. <i>Applied Thermal Engineering</i> , 2010, 30, 413-424.	6.0	3
57	Nonlinear Modeling of Cracked Beams for Impedance Based Structural Health Monitoring. , 2017, , .		3
58	Modified finite elements method to investigate vibrations of the main cables in suspended bridges. <i>Engineering Structures</i> , 2020, 216, 110701.	5.3	2
59	Nonlinear vibration of a nanocomposite laminated piezoelectric trapezoidal actuator in subsonic airflow under combined electrical and forcing excitations. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2021, 235, 4784-4817.	2.1	2
60	Robust regulation and tracking system design for multivariable control of the tape transport mechanism. <i>Microsystem Technologies</i> , 2012, 18, 557-573.	2.0	1
61	Scaled Boundary Finite Element Method for Modeling of Impedance Based Structural Health Monitoring of 2D Structure. , 2018, , .		1
62	Two-frequency parametric excitation and combination resonance of a nanocomposite laminated piezoelectric trapezoidal plate in subsonic airflow. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2020, , 095440622097543.	2.1	1
63	Elasto-Plastic Modeling of Beams for Impedance Based Structural Health Monitoring. , 2018, , .		0
64	Nonlinear Oscillations and Stability of Rotating Low-Aspect-Ratio Blades Containing Internal Resonance. <i>AIAA Journal</i> , 2021, 59, 5066-5090.	2.6	0