Mergen H Ghayesh

List of Publications by Year
in descending order

142	7,308	35280	46798
papers	citations	48 h-index	83 g-index

143	143	143	2095
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the mechanics of shear deformable micro beams under thermo-mechanical loads using finite element analysis and deep learning neural network. Mechanics Based Design of Structures and Machines, 2023, 51, 6612-6656.	3.5	9
2	Performance based design optimization of an intrinsically compliant 6- dof parallel robot. Mechanics Based Design of Structures and Machines, 2022, 50, 1237-1252.	3.5	10
3	Optical Coherence Tomography Based Biomechanical Fluid-Structure Interaction Analysis of Coronary Atherosclerosis Progression. Journal of Visualized Experiments, 2022, , .	0.3	2
4	Effect of Nonlinear Blood Viscosity on LDL Transport and Fluid-Structure Interaction Biomechanics of a Multi-stenosis Left Circumflex Coronary Artery. NODYCON conference proceedings series, 2022, , 39-48.	0.0	0
5	Wall Shear Stress for an Aorta with Aneurysms Via Computational Fluid Dynamics. NODYCON conference proceedings series, 2022, , 27-37.	0.0	3
6	Nonlinear continuum mechanics of thick hyperelastic sandwich beams using various shear deformable beam theories. Continuum Mechanics and Thermodynamics, 2022, 34, 781-827.	2.0	18
7	A new equivalent sand grain roughness relation for two-dimensional rough wall turbulent boundary layers. Journal of Fluid Mechanics, 2022, 940, .	3.4	13
8	Automated Coronary Optical Coherence Tomography Feature Extraction with Application to Three-Dimensional Reconstruction. Tomography, 2022, 8, 1307-1349.	2.2	11
9	Enhanced Vibration Energy Harvesting Using Mechanical Stoppers and Parametric Resonances. , 2021, , 173-179.		0
10	Size-dependent dynamics of double-microbeam systems with various boundary conditions via modified couple stress theory. Microsystem Technologies, 2021, 27, 3193-3210.	2.1	11
11	Effect of Blood Flow Models on the Flow-Induced Vibrations of Coronary Arteries. , 2021, , 345-351.		0
12	In Vivo Based Fluidâ€“Structure Interaction Biomechanics of the Left Anterior Descending Coronary Artery. Journal of Biomechanical Engineering, 2021, 143, .	1.6	9
13	Effects of geometric nonlinearities on the coupled dynamics of CNT strengthened composite beams with porosity, mass and geometric imperfections. Engineering With Computers, 2021, 38, 3463-3488.	4.1	19
14	Flow-Induced Dynamics of Bifurcated Coronary Arteries. , 2021, , 339-344.		0
15	Numerical Framework and Design Optimization of an Intrinsically Compliant 3-DOF Parallel Robot. Journal of Computing and Information Science in Engineering, 2021, 21, .	3.0	10
16	Nonlinear coupled mechanics of nanotubes incorporating both nonlocal and strain gradient effects. Mechanics of Advanced Materials and Structures, 2020, 27, 373-382.	3.8	30
17	Robotic orthoses for gait rehabilitation: An overview of mechanical design and control strategies. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2020, 234, 444-457.	1.7	28
18	Local dynamic analysis of imperfect fluid-conveying nanotubes with large deformations incorporating nonlinear damping. JVC/Journal of Vibration and Control, 2020, 26, 413-429.	2.4	5

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19	A review on the biomechanics of coronary arteries. International Journal of Engineering Science, 2020, 147, 103201.	5.5	47
20	Porosity, mass and geometric imperfection sensitivity in coupled vibration characteristics of CNT-strengthened beams with different boundary conditions. Engineering With Computers, 2020, 38, 2313-2339.	4.1	20
21	A continuum viscoelastic model of Timoshenko NSGT nanobeams. Engineering With Computers, 2020, 38, 631-646.	4.1	14
22	In vivo based biomechanics of right and left coronary arteries. International Journal of Engineering Science, 2020, 154, 103281.	5.5	13
23	A coupled nonlinear nonlocal strain gradient theory for functionally graded Timoshenko nanobeams. Microsystem Technologies, 2020, 26, 2053-2066.	2.1	5
24	State-of-the-Art Robotic Devices for Wrist Rehabilitation: Design and Control Aspects. IEEE Transactions on Human-Machine Systems, 2020, 50, 361-372.	4.7	60
25	Efficient Broadband Vibration Energy Harvesting Using Multiple Piezoelectric Bimorphs. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	2.5	13
26	On the dynamics of axially functionally graded CNT strengthened deformable beams. European Physical Journal Plus, 2020, 135, .	2.7	23
27	Resonant dynamics of axially functionally graded imperfect tapered Timoshenko beams. JVC/Journal of Vibration and Control, 2019, 25, 336-350.	2.4	11
28	Nonlinear Mechanics of Beams With Partial Piezoelectric Layers. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	2.5	3
29	Viscoelastic nonlinear dynamic behaviour of Timoshenko FG beams. European Physical Journal Plus, 2019, 134, .	2.7	11
30	Asymmetric Oscillations of AFG Microscale Nonuniform Deformable Timoshenko Beams. Vibration, 2019, 2, 201-221.	1.5	1
31	Global nonlocal viscoelastic dynamics of pulsatile fluid-conveying imperfect nanotubes. European Physical Journal Plus, 2019, 134, .	2.7	7
32	Dynamics of nonuniform deformable AFG viscoelastic microbeams. Microsystem Technologies, 2019, 25, 3857-3866.	2.1	4
33	Nonsymmetric Nonlinear Dynamics of Piezoelectrically Actuated Beams. Journal of Vibration and Acoustics, Transactions of the ASME, 2019, 141, .	1.8	3
34	Pulsatile vibrations of viscoelastic microtubes conveying fluid. Microsystem Technologies, 2019, 25, 3609-3623.	2.1	10
35	Super and subcritical nonlinear nonlocal analysis of NSGT nanotubes conveying nanofluid. Microsystem Technologies, 2019, 25, 4693-4707.	2.1	6
36	A coupled longitudinal-transverse nonlinear NSGT model for CNTs incorporating internal energy loss. European Physical Journal Plus, 2019, 134, .	2.7	14

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37	A nonlinear viscoelastic model for NSGT nanotubes conveying fluid incorporating slip boundary conditions. JVC/Journal of Vibration and Control, 2019, 25, 1883-1894.	2.4	7
38	Mechanics of Fluid-Conveying Microtubes: Coupled Buckling and Post-Buckling. Vibration, 2019, 2, 102-115.	1.5	7
39	Resonant vibrations of FG viscoelastic imperfect Timoshenko beams. JVC/Journal of Vibration and Control, 2019, 25, 1823-1832.	2.4	22
40	A coupled nonlinear continuum model for bifurcation behaviour of fluid-conveying nanotubes incorporating internal energy loss. Microfluidics and Nanofluidics, 2019, 23, .	2.3	14
41	Application of nanotubes in conveying nanofluid: a bifurcation analysis with consideration of internal energy loss and geometrical imperfection. Microsystem Technologies, 2019, 25, 4357-4371.	2.1	8
42	Energy Concentration by Bluff Bodiesâ€"A Particle Image Velocimetry Investigation. Journal of Fluids Engineering, Transactions of the ASME, 2019, 141, .	2.0	2
43	A review on the mechanics of functionally graded nanoscale and microscale structures. International Journal of Engineering Science, 2019, 137, 8-36.	5.5	243
44	Large-amplitude coupled scale-dependent behaviour of geometrically imperfect NSGT nanotubes. International Journal of Mechanical Sciences, 2019, 150, 510-525.	9.0	45
45	Large-amplitude parametric response of fluid-conveying nanotubes due to flow pulsations. Microsystem Technologies, 2019, 26, 707-720.	2.1	5
46	Nonlinear vibration analysis of axially functionally graded shear-deformable tapered beams. Applied Mathematical Modelling, 2018, 59, 583-596.	4.9	156
47	Mechanics of tapered AFG shear-deformable microbeams. Microsystem Technologies, 2018, 24, 1743-1754.	2.1	25
48	Nonlinear mechanics of nanoscale tubes via nonlocal strain gradient theory. International Journal of Engineering Science, 2018, 129, 84-95.	5.5	109
49	Design, Fabrication, and Test of a Coupled Parametricâ€"Transverse Nonlinearly Broadband Energy Harvester. IEEE Transactions on Energy Conversion, 2018, 33, 457-464.	5.8	10
50	Nonlinear dynamics of doubly curved shallow microshells. Nonlinear Dynamics, 2018, 92, 803-814.	5.3	28
51	Dynamics of functionally graded viscoelastic microbeams. International Journal of Engineering Science, 2018, 124, 115-131.	5.5	182
52	Resonant responses of three-layered shear-deformable microbeams. Microsystem Technologies, 2018, 24, 2123-2136.	2.1	8
53	Stability and nonlinear dynamical analysis of functionally graded microplates. Microsystem Technologies, 2018, 24, 2109-2121.	2.1	9
54	Nonlinear mechanical behaviour of microshells. International Journal of Engineering Science, 2018, 127, 127-144.	5.5	60

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55	Viscoelastic resonant responses of shear deformable imperfect microbeams. JVC/Journal of Vibration and Control, 2018, 24, 3049-3062.	2.4	9
56	Modal interactions and energy transfers in large-amplitude vibrations of functionally graded microcantilevers. JVC/Journal of Vibration and Control, 2018, 24, 3882-3893.	2.4	8
57	Nonlinear Dynamics of Multilayered Microplates. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	1.6	29
58	Supercritical nonlinear parametric dynamics of Timoshenko microbeams. Communications in Nonlinear Science and Numerical Simulation, 2018, 59, 592-605.	3.5	87
59	Nonlinear mechanics of electrically actuated microplates. International Journal of Engineering Science, 2018, 123, 197-213.	5.5	119
60	Nonlinear oscillations of functionally graded microplates. International Journal of Engineering Science, 2018, 122, 56-72.	5.5	120
61	Improving Passive Stability of a Planar Quasi-Zero Stiffness Magnetic Levitation System via Lever Arm. , 2018, 326, 1-5.		6
62	Nonlinear mechanics of nanotubes conveying fluid. International Journal of Engineering Science, 2018, 133, 132-143.	5.5	78
63	A review on the mechanics of nanostructures. International Journal of Engineering Science, 2018, 133, 231-263.	5.5	205
64	On the dynamics of imperfect shear deformable microplates. International Journal of Engineering Science, 2018, 133, 264-283.	5.5	51
65	Nonlinear biomechanics of bifurcated atherosclerotic coronary arteries. International Journal of Engineering Science, 2018, 133, 60-83.	5.5	42
66	Chaotic oscillations of viscoelastic microtubes conveying pulsatile fluid. Microfluidics and Nanofluidics, 2018, 22, .	2.3	31
67	Stability and bifurcation characteristics of viscoelastic microcantilevers. Microsystem Technologies, 2018, 24, 4739-4746.	2.1	11
68	Three-dimensional biomechanics of coronary arteries. International Journal of Engineering Science, 2018, 130, 93-114.	5.5	61
69	Viscoelastically coupled dynamics of FG Timoshenko microbeams. Microsystem Technologies, 2018, 25, 651-663.	2.1	6
70	Vibrations of shear deformable FG viscoelastic microbeams. Microsystem Technologies, 2018, 25, 1387-1400.	2.1	19
71	Vibration characterisation of AFG microcantilevers in nonlinear regime. Microsystem Technologies, 2018, 25, 3061-3069.	2.1	5
72	Modified couple stress theory in orthogonal curvilinear coordinates. Acta Mechanica, 2018, 230, 851-869.	2.4	25

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73	Assist-as-Needed Control of an Intrinsically Compliant Robotic Gait Training Orthosis. IEEE Transactions on Industrial Electronics, 2017, 64, 1675-1685.	8.4	77
74	Vibration analysis of geometrically imperfect three-layered shear-deformable microbeams. International Journal of Mechanical Sciences, 2017, 122, 370-383.	9.0	105
75	A Parametrically Broadband Nonlinear Energy Harvester. Journal of Energy Resources Technology, Transactions of the ASME, 2017, 139, .	2.3	16
76	A Nonlinearly Broadband Tuneable Energy Harvester. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	1.4	10
77	Resonance Responses of Geometrically Imperfect Functionally Graded Extensible Microbeams. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	1.6	15
78	Effect of body weight support variation on muscle activities during robot assisted gait: a dynamic simulation study. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 626-635.	2.2	2
79	Nonlinear thermo-mechanical behaviour of MEMS resonators. Microsystem Technologies, 2017, 23, 5303-5315.	2.1	31
80	Adaptive Impedance Control of Parallel Ankle Rehabilitation Robot. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	1.4	26
81	Oscillations of functionally graded microbeams. International Journal of Engineering Science, 2017, 110, 35-53.	5.5	124
82	Review on Design and Control Aspects of Robotic Shoulder Rehabilitation Orthoses. IEEE Transactions on Human-Machine Systems, 2017, 47, 1134-1145.	4.7	73
83	Musculoskeletal modelling of human ankle complex: Estimation of ankle joint moments. Clinical Biomechanics, 2017, 44, 75-82.	1.4	18
84	Parametric vibrations of imperfect Timoshenko microbeams. Microsystem Technologies, 2017, 23, 4917-4929.	2.1	11
85	Motion characteristics of bilayered extensible Timoshenko microbeams. International Journal of Engineering Science, 2017, 112, 1-17.	5.5	90
86	State-of-the-art robotic devices for ankle rehabilitation: Mechanism and control review. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2017, 231, 1224-1234.	1.7	31
87	Bistable nonlinear response of MEMS resonators. Nonlinear Dynamics, 2017, 90, 1627-1645.	5.3	24
88	Large-amplitude dynamics of a functionally graded microcantilever with an intermediate spring-support and a point-mass. Acta Mechanica, 2017, 228, 4309-4323.	2.4	5
89	Size-dependent internal resonances and modal interactions in nonlinear dynamics of microcantilevers. International Journal of Mechanics and Materials in Design, 2017, 14, 127-140.	2.5	19
90	Bending and vibration analyses of coupled axially functionally graded tapered beams. Nonlinear Dynamics, 2017, 91, 17-28.	5.3	28

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91	Large-amplitude dynamical behaviour of microcantilevers. International Journal of Engineering Science, 2016, 106, 29-41.	5.5	85
92	Viscoelastically coupled size-dependent dynamics of microbeams. International Journal of Engineering Science, 2016, 109, 243-255.	5.5	90
93	Nonlinear size-dependent dynamics of microarches with modal interactions. JVC/Journal of Vibration and Control, 2016, 22, 3679-3689.	2.4	20
94	Size-dependent parametric dynamics of imperfect microbeams. International Journal of Engineering Science, 2016, 99, 39-55.	5.5	87
95	Dynamic stability in parametric resonance of axially excited Timoshenko microbeams. Meccanica, 2016, 51, 2459-2472.	1.9	13
96	Size-dependent performance of microgyroscopes. International Journal of Engineering Science, 2016, 100, 99-111.	5.5	159
97	Coupled Nonlinear Dynamics of Geometrically Imperfect Shear Deformable Extensible Microbeams. Journal of Computational and Nonlinear Dynamics, 2016, 11, .	1.6	7
98	Size-dependent large-amplitude oscillations of microcantilevers. Microsystem Technologies, 2016, 23, 3477-3488.	2.1	4
99	Viscoelastically coupled size-dependent behaviour of imperfect extensible microbeams. International Journal of Mechanics and Materials in Design, 2016, 13, 569-581.	2.5	6
100	Complex motion characteristics of three-layered Timoshenko microarches. Microsystem Technologies, 2016, 23, 3731-3744.	2.1	11
101	A size-dependent nonlinear third-order shear-deformable dynamic model for a microplate on an elastic medium. Microsystem Technologies, 2016, 23, 3281-3299.	2.1	6
102	Viscoelasticity effects on resonant response of a shear deformable extensible microbeam. Nonlinear Dynamics, 2016, 87, 391-406.	5.3	13
103	Thermo-mechanical dynamics of three-dimensional axially moving beams. Nonlinear Dynamics, 2015, 80, 1643-1660.	5.3	20
104	Thermo-mechanical dynamics of perfect and imperfect Timoshenko microbeams. International Journal of Engineering Science, 2015, 91, 12-33.	5.5	204
105	Chaotic motion of a parametrically excited microbeam. International Journal of Engineering Science, 2015, 96, 34-45.	5.5	162
106	Nonlinear dynamical behaviour of geometrically imperfect microplates based on modified couple stress theory. International Journal of Mechanical Sciences, 2015, 90, 133-144.	9.0	174
107	Nonlinear dynamics of microplates. International Journal of Engineering Science, 2015, 86, 60-73.	5.5	170
108	Size-dependent behaviour of electrically actuated microcantilever-based MEMS. International Journal of Mechanics and Materials in Design, 2015, 12, 301-315.	2.5	44

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109	On the nonlinear resonant dynamics of Timoshenko microbeams: effects of axial load and geometric imperfection. Meccanica, 2015, 51, 155-169.	1.9	15
110	Modal interactions in primary and subharmonic resonant dynamics of imperfect microplates with geometric nonlinearities. Acta Mechanica Sinica/Lixue Xuebao, 2015, 32, 469-480.	3.8	4
111	Coupled size-dependent behavior of shear deformable microplates. Acta Mechanica, 2015, 227, 757-775.	2.4	11
112	Parametric instability of microbeams in supercritical regime. Nonlinear Dynamics, 2015, 83, 1171-1183.	5.3	20
113	Nonlinear coupled dynamics of shear deformable microbeams. International Journal of Dynamics and Control, 2015, 4, 492-503.	1.7	4
114	Nonlinear resonant response of imperfect extensible Timoshenko microbeams. International Journal of Mechanics and Materials in Design, 2015, 13, 43-55.	2.5	70
115	Nonlinear size-dependent behaviour of single-walled carbon nanotubes. Applied Physics A: Materials Science and Processing, 2014, 117, 1393-1399.	2.6	26
116	In-plane and out-of-plane motion characteristics of microbeams with modal interactions. Composites Part B: Engineering, 2014, 60, 423-439.	12.9	173
117	Post-buckling dynamics of Timoshenko microbeams under axial loads. International Journal of Dynamics and Control, 2014, 3, 403-415.	1.7	6
118	In-plane and out-of-plane nonlinear size-dependent dynamics of microplates. Nonlinear Dynamics, 2014, 79, 1771-1785.	5.3	164
119	Nonlinear behaviour of electrically actuated MEMS resonators. International Journal of Engineering Science, 2013, 71, 137-155.	5.5	259
120	Coupled nonlinear size-dependent behaviour of microbeams. Applied Physics A: Materials Science and Processing, 2013, 112, 329-338.	2.6	75
121	Nonlinear dynamics of cantilevered extensible pipes conveying fluid. Journal of Sound and Vibration, 2013, 332, 6405-6418.	4.5	116
122	Nonlinear resonant behavior of microbeams over the buckled state. Applied Physics A: Materials Science and Processing, 2013, 113, 297-307.	2.6	66
123	Coupled global dynamics of an axially moving viscoelastic beam. International Journal of Non-Linear Mechanics, 2013, 51, 54-74.	3.1	86
124	Nonlinear dynamics of a microscale beam based on the modified couple stress theory. Composites Part B: Engineering, 2013, 50, 318-324.	12.9	248
125	Nonlinear forced vibrations of a microbeam based on the strain gradient elasticity theory. International Journal of Engineering Science, 2013, 63, 52-60.	5.5	252
126	Nonlinear dynamics of a geometrically imperfect microbeam based on the modified couple stress theory. International Journal of Engineering Science, 2013, 68, 11-23.	5.5	241

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127	Nonlinear dynamics of an axially moving Timoshenko beam with an internal resonance. Nonlinear Dynamics, 2013, 73, 39-52.	5.3	75
128	Three-dimensional nonlinear size-dependent behaviour of Timoshenko microbeams. International Journal of Engineering Science, 2013, 71, 1-14.	5.5	211
129	Parametric Stability and Bifurcations of Axially Moving Viscoelastic Beams with Time-Dependent Axial Speed[#]. Mechanics Based Design of Structures and Machines, 2013, 41, 359-381.	3.5	19
130	Thermal Effects on Nonlinear Vibrations of an Axially Moving Beam with an Intermediate Spring-Mass Support. Shock and Vibration, 2013, 20, 385-399.	0.6	15
131	Subharmonic dynamics of an axially accelerating beam. Archive of Applied Mechanics, 2012, 82, 1169-1181.	2.1	75
132	Nonlinear vibrations and stability of an axially moving beam with an intermediate spring support: two-dimensional analysis. Nonlinear Dynamics, 2012, 70, 335-354.	5.3	84
133	Free vibrations of beam-mass-spring systems: analytical analysis with numerical confirmation. Acta Mechanica Sinica/Lixue Xuebao, 2012, 28, 468-481.	3.8	27
134	Nonlinear vibrations and stability of parametrically exited systems with cubic nonlinearities and internal boundary conditions: A general solution procedure. Applied Mathematical Modelling, 2012, 36, 3299-3311.	4.9	86
135	Thermo-mechanical nonlinear dynamics of a buckled axially moving beam. Archive of Applied Mechanics, 2012, 83, 25-42.	2.1	67
136	Three-dimensional nonlinear planar dynamics of an axially moving Timoshenko beam. Archive of Applied Mechanics, 2012, 83, 591-604.	2.1	22
137	A general solution procedure for vibrations of systems with cubic nonlinearities and nonlinear/time-dependent internal boundary conditions. Journal of Sound and Vibration, 2011, 330, 5382-5400.	4.5	82
138	An analytical solution for nonlinear dynamics of a viscoelastic beam-heavy mass system. Journal of Mechanical Science and Technology, 2011, 25, 1915-1923.	1.6	29
139	Stability and bifurcations of an axially moving beam with an intermediate spring support. Nonlinear Dynamics, 2011, 69, 193-210.	5.3	94
140	Thermo-mechanical nonlinear vibration analysis of a spring-mass-beam system. Archive of Applied Mechanics, 2011, 82, 317-331.	2.1	37
141	Vibrations and stability of axially traveling laminated beams. Applied Mathematics and Computation, 2010, 217, 545-556.	1.9	68
142	Nonlinear dynamic response of axially moving, stretched viscoelastic strings. Archive of Applied Mechanics, 2010, 81, 781-799.	2.1	84