Mohamed A Eltaher

List of Publications by Year
in descending order

96 papers	4,283 citations	159585 30 h-index	138484 58 g-index
117 all docs	117 docs citations	117 times ranked	1452 citing authors

#	Article	IF	Citations
1	Free vibration characteristics of a functionally graded beam by finite element method. Applied Mathematical Modelling, 2011, 35, 412-425.	4.2	445
2	Free vibration analysis of functionally graded size-dependent nanobeams. Applied Mathematics and Computation, 2012, 218, 7406-7420.	2.2	305
3	A review on nonlocal elastic models for bending, buckling, vibrations, and wave propagation of nanoscale beams. Applied Mathematical Modelling, 2016, 40, 4109-4128.	4.2	281
4	Static and stability analysis of nonlocal functionally graded nanobeams. Composite Structures, 2013, 96, 82-88.	5.8	229
5	Vibration analysis of Euler–Bernoulli nanobeams by using finite element method. Applied Mathematical Modelling, 2013, 37, 4787-4797.	4.2	192
6	Determination of neutral axis position and its effect on natural frequencies of functionally graded macro/nanobeams. Composite Structures, 2013, 99, 193-201.	5.8	147
7	Static analysis of nanobeams including surface effects by nonlocal finite element. Journal of Mechanical Science and Technology, 2012, 26, 3555-3563.	1.5	116
8	Coupling effects of nonlocal and surface energy on vibration analysis of nanobeams. Applied Mathematics and Computation, 2013, 224, 760-774.	2.2	114
9	Static and buckling analysis of functionally graded Timoshenko nanobeams. Applied Mathematics and Computation, 2014, 229, 283-295.	2.2	88
10	Experimental and numerical investigation on strengthening mechanisms of nanostructured Al-SiC composites. Journal of Alloys and Compounds, 2019, 774, 1123-1132.	5.5	84
11	Buckling and postbuckling of composite beams in hygrothermal environments. Composite Structures, 2016, 152, 665-675.	5.8	74
12	Numerical analysis of nonlinear free and forced vibrations of buckled curved beams resting on nonlinear elastic foundations. International Journal of Non-Linear Mechanics, 2018, 101, 157-173.	2.6	63
13	Bending and vibrational behaviors of piezoelectric nonlocal nanobeam including surface elasticity. Waves in Random and Complex Media, 2019, 29, 264-280.	2.7	57
14	Effect of Al2O3 particles on mechanical and tribological properties of Al–Mg dual-matrix nanocomposites. Ceramics International, 2020, 46, 5779-5787.	4.8	56
15	Influence of axial load function and optimization on static stability of sandwich functionally graded beams with porous core. Engineering With Computers, 2020, 36, 1929-1946.	6.1	56
16	Vibration of nonlinear graduation of nano-Timoshenko beam considering the neutral axis position. Applied Mathematics and Computation, 2014, 235, 512-529.	2.2	51
17	Modified porosity model in analysis of functionally graded porous nanobeams. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2018, 40, 1.	1.6	50
18	A novel nonlocal strain gradient Quasi-3D bending analysis of sigmoid functionally graded sandwich nanoplates. Composite Structures, 2021, 262, 113347.	5.8	48

#	Article	IF	Citations
19	Mechanical analysis of higher order gradient nanobeams. Applied Mathematics and Computation, 2014, 229, 260-272.	2.2	47
20	Nanobeam sensor for measuring a zeptogram mass. International Journal of Mechanics and Materials in Design, 2016, 12, 211-221.	3.0	47
21	Dynamics of perforated nanobeams subject to moving mass using the nonlocal strain gradient theory. Applied Mathematical Modelling, 2021, 96, 215-235.	4.2	45
22	Buckling and post-buckling behaviors of higher order carbon nanotubes using energy-equivalent model. Engineering With Computers, 2021, 37, 2823-2836.	6.1	42
23	Free vibration of a cracked FG microbeam embedded in an elastic matrix and exposed to magnetic field in a thermal environment. Composite Structures, 2021, 261, 113552.	5.8	42
24	Nonlinear analysis of size-dependent and material-dependent nonlocal CNTs. Composite Structures, 2016, 153, 902-913.	5.8	40
25	Analysis of axially temperature-dependent functionally graded carbon nanotube reinforced composite plates. Engineering With Computers, 2022, 38, 2533-2554.	6.1	39
26	A detailed hydrothermal investigation of a helical micro double-tube heat exchanger for a wide range of helix pitch length. Case Studies in Thermal Engineering, 2021, 28, 101413.	5.7	39
27	Free vibration of symmetric and sigmoid functionally graded nanobeams. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	38
28	Dynamic response of nonlocal strain gradient FG nanobeam reinforced by carbon nanotubes under moving point load. European Physical Journal Plus, 2021, 136, 1.	2.6	38
29	Analysis of size-dependent mechanical properties of CNTs mass sensor using energy equivalent model. Sensors and Actuators A: Physical, 2016, 246, 9-17.	4.1	36
30	Free vibration and buckling stability of FG nanobeams exposed to magnetic and thermal fields. Engineering With Computers, 2022, 38, 3463-3482.	6.1	36
31	Postbuckling of Curved Carbon Nanotubes Using Energy Equivalent Model. Journal of Nano Research, 0, 57, 136-157.	0.8	33
32	Static stability of higher order functionally graded beam under variable axial load. AEJ - Alexandria Engineering Journal, 2020, 59, 1661-1675.	6.4	33
33	Nonlinear stability and vibration of imperfect CNTs by Doublet mechanics. Applied Mathematics and Computation, 2020, 382, 125311.	2.2	33
34	Static analysis of nanobeams using nonlocal FEM. Journal of Mechanical Science and Technology, 2013, 27, 2035-2041.	1.5	32
35	Static bending and buckling of perforated nonlocal size-dependent nanobeams. Microsystem Technologies, 2018, 24, 4881-4893.	2.0	32
36	Postbuckling and Free Vibration of Multilayer Imperfect Nanobeams under a Pre-Stress Load. Applied Sciences (Switzerland), 2018, 8, 2238.	2.5	32

#	Article	IF	Citations
37	Static stability of a unified composite beams under varying axial loads. Thin-Walled Structures, 2020, 147, 106488.	5.3	31
38	Dynamic analysis of viscoelastic functionally graded porous thick beams under pulse load. Engineering With Computers, 2022, 38, 365-377.	6.1	31
39	Resonance frequencies of size dependent perforated nonlocal nanobeam. Microsystem Technologies, 2018, 24, 3925-3937.	2.0	30
40	Pull-in and freestanding instability of actuated functionally graded nanobeams including surface and stiffening effects. Engineering With Computers, 2022, 38, 255-276.	6.1	30
41	Periodic and nonperiodic modes of postbuckling and nonlinear vibration of beams attached to nonlinear foundations. Applied Mathematical Modelling, 2019, 75, 414-445.	4.2	29
42	Impact and post-impact response of lightweight CFRP/wood sandwich composites. Composite Structures, 2022, 279, 114766.	5.8	27
43	Bio-inspired composite laminate design with improved out-of-plane strength and ductility. Composites Part A: Applied Science and Manufacturing, 2021, 144, 106362.	7.6	26
44	Thermo-Mechanical and Delamination Properties in Drilling GFRP Composites by Various Drill Angles. Polymers, 2021, 13, 1884.	4.5	26
45	Static and dynamic stability responses of multilayer functionally graded carbon nanotubes reinforced composite nanoplates via quasi 3D nonlocal strain gradient theory. Defence Technology, 2022, 18, 1778-1809.	4.2	26
46	Vibration of a carbyne nanomechanical mass sensor with surface effect. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	24
47	Dynamic analysis of nanoscale Timoshenko CNTs based on doublet mechanics under moving load. European Physical Journal Plus, 2021, 136, 1.	2.6	24
48	Optimal weight for buckling of FG beam under variable axial load using Pareto optimality. Composite Structures, 2021, 258, 113193.	5.8	23
49	Multi-objective shape optimization for axially functionally graded microbeams. Composite Structures, 2021, 258, 113370.	5.8	23
50	On vibration of sigmoid/symmetric functionally graded nonlocal strain gradient nanobeams under moving load. International Journal of Mechanics and Materials in Design, 2021, 17, 721-742.	3.0	23
51	Influence of the perforation configuration on dynamic behaviors of multilayered beam structure. Structures, 2020, 28, 1413-1426.	3.6	22
52	Dynamic analysis of FG nanobeam reinforced by carbon nanotubes and resting on elastic foundation under moving load. Mechanics Based Design of Structures and Machines, 2023, 51, 5383-5406.	4.7	22
53	Modeling of viscoelastic contact-impact problems. Applied Mathematical Modelling, 2010, 34, 2336-2352.	4.2	21
54	Dynamics analysis of timoshenko perforated microbeams under moving loads. Engineering With Computers, 2022, 38, 2413-2429.	6.1	21

#	Article	IF	Citations
55	Free Vibration of FG-CNTRCs Nano-Plates/Shells with Temperature-Dependent Properties. Mathematics, 2022, 10, 583.	2.2	21
56	Nonlinear size-dependent finite element analysis of functionally graded elastic tiny-bodies. International Journal of Mechanical Sciences, 2013, 77, 356-364.	6.7	20
57	Surface and thermal load effects on the buckling of curved nanowires. Engineering Science and Technology, an International Journal, 2014, 17, 279-283.	3.2	20
58	On bending and buckling responses of perforated nanobeams including surface energy for different beams theories. Engineering With Computers, 2022, 38, 2385-2411.	6.1	20
59	Static bending of perforated nanobeams including surface energy and microstructure effects. Engineering With Computers, 2022, 38, 415-435.	6.1	20
60	Predictive model for indentation of elasto-plastic functionally graded composites. Composites Part B: Engineering, 2020, 197, 108129.	12.0	20
61	Bending and Buckling of FG-GRNC Laminated Plates via Quasi-3D Nonlocal Strain Gradient Theory. Mathematics, 2022, 10, 1321.	2.2	20
62	Behavior of a viscoelastic composite plates under transient load. Journal of Mechanical Science and Technology, 2011, 25, 1129-1140.	1.5	19
63	Weight optimization of axially functionally graded microbeams under buckling and vibration behaviors. Mechanics Based Design of Structures and Machines, 2023, 51, 213-234.	4.7	19
64	Vibration response of symmetric and sigmoid functionally graded beam rested on elastic foundation under moving point mass. Mechanics Based Design of Structures and Machines, 2023, 51, 2607-2631.	4.7	19
65	Buckling Analysis of CNTRC Curved Sandwich Nanobeams in Thermal Environment. Applied Sciences (Switzerland), 2021, 11, 3250.	2.5	19
66	Heat-Affected Zone and Mechanical Analysis of GFRP Composites with Different Thicknesses in Drilling Processes. Polymers, 2021, 13, 2246.	4.5	18
67	Annual performance analysis of small scale industrial waste heat assisted solar tower power plant and application of nanofluid. Journal of the Taiwan Institute of Chemical Engineers, 2021, 124, 216-227.	5.3	18
68	A Dynamic Analysis of Randomly Oriented Functionally Graded Carbon Nanotubes/Fiber-Reinforced Composite Laminated Shells with Different Geometries. Mathematics, 2022, 10, 408.	2.2	17
69	Exact Solution of Nonlinear Behaviors of Imperfect Bioinspired Helicoidal Composite Beams Resting on Elastic Foundations. Mathematics, 2022, 10, 887.	2.2	17
70	Modal participation of fixed–fixed single-walled carbon nanotube with vacancies. International Journal of Advanced Structural Engineering, 2019, 11, 151-163.	1.3	16
71	Vibration response of Timoshenko perforated microbeams under accelerating load and thermal environment. Applied Mathematics and Computation, 2021, 407, 126307.	2.2	16
72	Implicit Finite Difference Simulation of Prandtl-Eyring Nanofluid over a Flat Plate with Variable Thermal Conductivity: A Tiwari and Das Model. Mathematics, 2021, 9, 3153.	2.2	16

#	Article	IF	Citations
73	Micromechanical modeling of damage in elasto-plastic nanocomposites using unit cell representative volume element and cohesive zone model. Ceramics International, 2020, 46, 10469-10480.	4.8	15
74	Thermoelastic Crack Analysis in Functionally Graded Pipelines Conveying Natural Gas by an FEM. International Journal of Applied Mechanics, 2018, 10, 1850036.	2.2	14
75	Stability buckling and bending of nanobeams including cutouts. Engineering With Computers, 2022, 38, 209-230.	6.1	14
76	Dynamic analysis of thick beams with functionally graded porous layers and viscoelastic support. JVC/Journal of Vibration and Control, 2021, 27, 1644-1655.	2.6	14
77	On the static stability of nonlocal nanobeams using higher-order beam theories. Advances in Nano Research, 2016, 4, 51-64.	0.9	14
78	Improving energy dissipation and damage resistance of CFRP laminates using alumina nanoparticles. Plastics, Rubber and Composites, 2019, 48, 208-217.	2.0	13
79	Nonlinear Static Stability of Imperfect Bio-Inspired Helicoidal Composite Beams. Mathematics, 2022, 10, 1084.	2.2	13
80	Vibration response of perforated thick beam under moving load. European Physical Journal Plus, 2021, 136, 1.	2.6	12
81	Participation Factor and Vibration of Carbon Nanotube with Vacancies. Journal of Nano Research, 2019, 57, 158-174.	0.8	11
82	Predictive model for spherical indentation on elastoplastic nanocomposites: Loading and unloading behavior. Ceramics International, 2019, 45, 3088-3100.	4.8	11
83	The effects of incident solar radiation on the collector efficiency using coolant hybrid nanofluid via simulation of solar tower system with the parallel heat exchangers. Journal of the Taiwan Institute of Chemical Engineers, 2021, 124, 106-115.	5.3	11
84	The response of viscoelastic-frictionless bodies under normal impact. International Journal of Mechanical Sciences, 2010, 52, 446-454.	6.7	10
85	Nonlinear dynamics of viscoelastic flexible structural systems by finite element method. Engineering With Computers, 2022, 38, 169-190.	6.1	10
86	Dynamic Analysis of Layered Functionally Graded Viscoelastic Deep Beams with Different Boundary Conditions Due to a Pulse Load. International Journal of Applied Mechanics, 2020, 12, 2050055.	2.2	9
87	On the evolution of energy dissipation in dispersed composite laminates under out-of-plane loading. Composites Part B: Engineering, 2021, 216, 108864.	12.0	9
88	Numerical investigation of molten salt/SiO2 nano-fluid in the solar power plant cycle and examining different arrangements of shell and tube heat exchangers and plate heat exchangers in these cycles. Journal of the Taiwan Institute of Chemical Engineers, 2021, 124, 1-8.	5.3	8
89	Analytical solution of free vibration of viscoelastic perforated nanobeam. Archive of Applied Mechanics, 2023, 93, 221-243.	2.2	8
90	Experimental and Numerical Investigation on Indentation of Orthotropic Microplates with Finite Thickness. International Polymer Processing, 2020, 35, 314-325.	0.5	6

#	Article	IF	Citations
91	Effective numerical technique applied for Burgers' equation of (1â€°+â€°1)â€, (2â€°+â€°1)â€dimensional, and coupled forms. Mathematical Methods in the Applied Sciences, 2021, 44, 10135-10153.	2.3	5
92	High repetition rate deposition of boron nitride films using femtosecond pulsed laser. Materials Research Express, 2020, 7, 096401.	1.6	5
93	Elastoplastic Indentation Response of Sigmoid/Power Functionally Graded Ceramics Structures. Polymers, 2022, 14, 1225.	4.5	5
94	Effects of viscoelastic bonding layer on performance of piezoelectric actuator attached to elastic structure. Materials Research Express, 2022, 9, 045701.	1.6	3
95	Indentation Response of Power and Sigmoid Functionally Graded PSZ/NiCrAlY Composites. International Journal of Applied Mechanics, 2022, 14, .	2.2	2
96	Model for nano-scale bonding wires under thermal loading. , 2014, , .		1