

Shankar Krishnapillai

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

120 papers	1,162 citations	18 h-index	28 g-index
123 ext. papers	1,387 ext. citations	2.2 avg, IF	5 L-index

#	Paper	IF	Citations
120	Numerical Study of Traction at GrouserSoft Seabed Interface Incorporating Experimentally Validated Constitutive Model. <i>Lecture Notes in Mechanical Engineering</i> , 2022 , 1079-1090	0.4	0
119	Clustering in Pareto Front: Application on an Aero Engine Rotor-Bearing System for Improved Design. <i>Lecture Notes in Mechanical Engineering</i> , 2021 , 141-153	0.4	
118	Multi-Objective Optimization of a Maneuvering Small Aircraft Turbine Engine Rotor System. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2021 , 103, 1	2.9	
117	Identification of Nonlinear Joint Interface Parameters Using Instantaneous Power Flow Balance Approach. <i>Springer Proceedings in Mathematics and Statistics</i> , 2021 , 183-191	0.2	
116	Parametric Identification of Nonlinear Structures Using Particle Swarm Optimization Based on Power Flow Balance Criteria. <i>Springer Proceedings in Mathematics and Statistics</i> , 2021 , 249-257	0.2	
115	High-velocity impact response of titanium-based fiber metal laminates. Part II: Analytical modeling. <i>International Journal of Impact Engineering</i> , 2021 , 152, 103853	4	7
114	High-velocity impact response of titanium-based fiber metal laminates. Part I: experimental investigations. <i>International Journal of Impact Engineering</i> , 2021 , 152, 103845	4	5
113	An improved spinal injury parameter model for underbody impulsive loading scenarios. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2020 , 36, e3307	2.6	
112	Multi-objective Goal Programming for Low Altitude Seat Ejections with Fuzzy LogicBased Decision-making. <i>Human Factors and Mechanical Engineering for Defense and Safety</i> , 2020 , 4, 1	1.7	2
111	Identification of Nonlinear Structural Parameters Using Combined Power Flow and Acceleration Matching Approaches. <i>Lecture Notes in Mechanical Engineering</i> , 2020 , 1139-1149	0.4	1
110	A Novel Passive Mechanism to Improve Induced Strain in Two-DOF Piezoelectric Energy Harvester. <i>Lecture Notes in Mechanical Engineering</i> , 2020 , 1109-1116	0.4	
109	A constitutive model for bentoniteWater mixture and the effect of wall slip boundary conditions on its mechanical response. <i>International Journal of Non-Linear Mechanics</i> , 2020 , 119, 103318	2.8	2
108	Non-linear structural parameter identification using instantaneous power flow balance approach. <i>Inverse Problems in Science and Engineering</i> , 2020 , 1-27	1.3	0
107	Three-objective optimization of aircraft secondary power system rotor dynamics. <i>Mechanics Based Design of Structures and Machines</i> , 2020 , 1-17	1.7	1
106	Macro geometry multi-objective optimization of planetary gearbox considering scuffing constraint. <i>Mechanism and Machine Theory</i> , 2020 , 154, 104045	4	8
105	High strain rate studies for different laminate configurations of bi-directional glass/epoxy and carbon/epoxy composites using DIC. <i>Structures</i> , 2020 , 27, 2451-2465	3.4	5
104	Prediction of nonlinear viscoelastic behaviour of simulative soil for deep-sea sediment using a thermodynamically compatible model. <i>Inverse Problems in Science and Engineering</i> , 2020 , 28, 777-795	1.3	4

103	Sub-Structural Parameter Identification Including Cracks of Beam Structure Using PZT Patch. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2019 , 20, 115-129 ^{0.7}	3
102	Study of pilot's comfortness in the cockpit seat of a flight simulator. <i>International Journal of Industrial Ergonomics</i> , 2019 , 71, 1-7	2.9 3
101	Multi-objective optimization of the two-stage helical gearbox with tribological constraints. <i>Mechanism and Machine Theory</i> , 2019 , 138, 38-57	4 20
100	Multi-objective optimisation of a small aircraft turbine engine rotor system with self-updating Rayleigh damping model and frequency-dependent bearing-pedestal model. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2019 , 233, 5710-5723	1.3 3
99	Landing Response Analysis on High-Performance Aircraft* Using Estimated Touchdown States. <i>SAE International Journal of Aerospace</i> , 2019 , 12, 23-39	0.3
98	Investigation of nonlinear landing gear behavior and dynamic responses on high performance aircraft. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Aerospace Engineering</i> , 2019 , 233, 5674-5688	0.9 2
97	A novel passive mechanism to improve power output in 2DOF piezoelectric vibration energy harvester. <i>Smart Materials and Structures</i> , 2019 , 28, 115016	3.4 6
96	Multi-objective optimum design of an aero engine rotor system using hybrid genetic algorithm. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 624, 012025	0.4 2
95	Multiobjective optimization of rotor-bearing systems with an investigation of goal programming approach. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2019 , 233, 4270-4287	1.3 1
94	State Estimation for Landing Maneuver on High Performance Aircraft. <i>Journal of the Institution of Engineers (India): Series C</i> , 2019 , 100, 187-202	0.9
93	Soft soil track interaction modeling in single rigid body tracked vehicle models. <i>Journal of Terramechanics</i> , 2018 , 77, 1-14	2.2 14
92	Effect of nanoclay and different impactor shapes on glass/epoxy composites subjected to quasi-static punch shear loading. <i>Advances in Materials and Processing Technologies</i> , 2018 , 4, 345-357	0.8 8
91	Damage identification using combined acceleration and voltage matching with one-dimensional PZT patch model. <i>Multidiscipline Modeling in Materials and Structures</i> , 2018 , 14, 40-64	2.2
90	Advanced 3D and 2D damage assessment of low velocity impact response of glass and Kevlar fiber reinforced epoxy hybrid composites. <i>Advances in Materials and Processing Technologies</i> , 2018 , 4, 493-510 ^{0.8}	9
89	Statistical analysis of the tensile strength of GFRP, CFRP and hybrid composites. <i>Thin-Walled Structures</i> , 2018 , 126, 150-161	4.7 33
88	Quadratic serendipity finite elements over convex polyhedra. <i>International Journal for Numerical Methods in Engineering</i> , 2018 , 113, 109-129	2.4 12
87	Reliability analysis of tensile strengths using Weibull distribution in glass/epoxy and carbon/epoxy composites. <i>Composites Part B: Engineering</i> , 2018 , 133, 129-144	10 55
86	Influence of fibre orientation and thickness on the response of CFRP composites subjected to high velocity impact loading. <i>Advances in Materials and Processing Technologies</i> , 2018 , 4, 120-131	0.8 6

85	An Improved Multi-Objective Particle Swarm Optimization Based on Utopia Point Guided Search. <i>International Journal of Applied Metaheuristic Computing</i> , 2018 , 9, 71-96	0.8	4
84	High velocity impact damage investigation of carbon/epoxy/clay nanocomposites using 3D Computed Tomography. <i>Materials Today: Proceedings</i> , 2018 , 5, 16946-16955	1.4	16
83	Experimental and theoretical investigation of a unidirectional glass/epoxy composites under tensile and impact loading. <i>Materials Today: Proceedings</i> , 2018 , 5, 25174-25184	1.4	3
82	Digital image processing and thermo-mechanical response of neat epoxy and different laminate orientations of fiber reinforced polymer composites for vibration isolation applications. <i>International Journal of Polymer Analysis and Characterization</i> , 2018 , 23, 684-709	1.7	15
81	Application of RBF neural network in prediction of particle damping parameters from experimental data. <i>JVC/Journal of Vibration and Control</i> , 2017 , 23, 909-929	2	6
80	Vibration of Nonuniform Beams Under Moving Point Loads: An Approximate Analytical Solution in Time Domain. <i>International Journal of Structural Stability and Dynamics</i> , 2017 , 17, 1750035	1.9	5
79	Probability-based Studies on the Tensile Strength of GFRP, CFRP and Hybrid Composites. <i>Procedia Engineering</i> , 2017 , 173, 763-770		7
78	Effect of Fiber Orientation on Carbon/Epoxy and Glass/Epoxy Composites Subjected to Shear and Bending. <i>Solid State Phenomena</i> , 2017 , 267, 103-108	0.4	9
77	Comparative Study of a Neat Epoxy and Unidirectional Carbon/Epoxy Composites under Tensile and Impact Loading. <i>Solid State Phenomena</i> , 2017 , 267, 87-92	0.4	3
76	An Improved Multi-Objective Particle Swarm Optimization Algorithm Based on Adaptive Local Search. <i>International Journal of Applied Evolutionary Computation</i> , 2017 , 8, 1-29	0.6	2
75	Identification of structural parameters including crack using one dimensional PZT patch model. <i>Inverse Problems in Science and Engineering</i> , 2017 , 25, 1216-1241	1.3	4
74	Multi-Objective Optimization of Spur Gearbox with Inclusion of Tribological Aspects. <i>Journal of Friction and Wear</i> , 2017 , 38, 430-436	0.9	3
73	Pyroeffects on Magneto-Electro-Elastic Sensor patch subjected to thermal load. <i>Smart Structures and Systems</i> , 2017 , 19, 299-307		3
72	Experimental investigation of particle damper-based vibration suppression in printed circuit board for spacecraft applications. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 2016 , 230, 1299-1311	0.9	5
71	Structural damage identification using transfer matrix with lumped crack properties. <i>Inverse Problems in Science and Engineering</i> , 2016 , 24, 422-447	1.3	5
70	Application of particle damper on electronic packages for spacecraft. <i>Acta Astronautica</i> , 2016 , 127, 260-270	1.0	7
69	Non-uniform Euler-Bernoulli beams under a single moving oscillator: An approximate analytical solution in time domain. <i>Journal of Mechanical Science and Technology</i> , 2016 , 30, 4479-4487	1.6	4
68	Effect of high strain rate on glass/carbon/hybrid fiber reinforced epoxy laminated composites. <i>Composites Part B: Engineering</i> , 2016 , 100, 125-135	1.0	93

67	Vibration suppression of printed circuit boards using an external particle damper. <i>Journal of Sound and Vibration</i> , 2016 , 366, 98-116	3.9	18
66	Structural crack damage detection using transfer matrix and state vector. <i>Measurement: Journal of the International Measurement Confederation</i> , 2015 , 68, 310-327	4.6	5
65	Vibration of simply supported beams under a single moving load: A detailed study of cancellation phenomenon. <i>International Journal of Mechanical Sciences</i> , 2015 , 99, 40-47	5.5	35
64	Vector evaluated particle swarm optimisation for multi-objective structural system identification. <i>International Journal of Mathematical Modelling and Numerical Optimisation</i> , 2015 , 6, 40	0.3	
63	Improved Complex-valued Radial Basis Function (ICRBF) neural networks on multiple crack identification. <i>Applied Soft Computing Journal</i> , 2015 , 28, 285-300	7.5	11
62	Pyroeffects on magneto-electro-elastic sensor bonded on mild steel cylindrical shell. <i>Smart Structures and Systems</i> , 2015 , 16, 537-554		3
61	Damage identification using combined transient power flow balance and acceleration matching technique. <i>Structural Control and Health Monitoring</i> , 2014 , 21, 135-155	4.5	10
60	System identification of a composite plate using hybrid response surface methodology and particle swarm optimization in time domain. <i>Measurement: Journal of the International Measurement Confederation</i> , 2014 , 55, 499-511	4.6	9
59	Multiple crack damage detection of structures using the two crack transfer matrix. <i>Structural Health Monitoring</i> , 2014 , 13, 548-561	4.4	8
58	Detection of Cracks in Structures Using Two Crack Transfer Matrix. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 1084-1091		
57	Prediction of Particle Damping Parameters Using RBF Neural Network 2014 , 5, 335-344		8
56	Dynamic Thermal Analyses of a Structurally Reconfigured Electronics Package Onboard Mini Satellite. <i>Applied Mechanics and Materials</i> , 2014 , 592-594, 2117-2121	0.3	1
55	Identification of structural parameters using consistent mass transfer matrix. <i>Inverse Problems in Science and Engineering</i> , 2014 , 22, 436-457	1.3	8
54	PYROEFFECTS ON MULTIPHASE MAGNETO-ELECTRO-ELASTIC SENSOR PATCH BONDED ON MILD STEEL PLATE. <i>International Journal on Smart Sensing and Intelligent Systems</i> , 2014 , 7, 1134-1155	0.4	2
53	Heat extraction from Non-Convective and Lower Convective Zones of the solar pond: A transient study. <i>Solar Energy</i> , 2013 , 97, 517-528	6.8	64
52	Effect of Displacement Current in Magneto-Electro-Elastic 3D Beam Subjected to Dynamic Loading. <i>Mechanics of Advanced Materials and Structures</i> , 2013 , 20, 189-198	1.8	1
51	Modeling and optimization of passive and semi-active suspension systems for passenger cars to improve ride comfort and isolate engine vibration. <i>JVC/Journal of Vibration and Control</i> , 2013 , 19, 1471-1479	2.7	21
50	Optimal trends in Manoeuvre Load Control at subsonic and supersonic flight points for tailless delta wing aircraft. <i>Aerospace Science and Technology</i> , 2013 , 24, 128-135	4.9	1

49	Joint damage identification using Improved Radial Basis Function (IRBF) networks in frequency and time domain. <i>Applied Soft Computing Journal</i> , 2013 , 13, 3366-3379	7.5	17
48	STRUCTURAL PARAMETER IDENTIFICATION USING DAMPED TRANSFER MATRIX AND STATE VECTORS. <i>International Journal of Structural Stability and Dynamics</i> , 2013 , 13, 1250076	1.9	8
47	Pyroelectric and pyromagnetic effects on multiphase magneto-electro-elastic cylindrical shells for axisymmetric temperature. <i>Smart Materials and Structures</i> , 2013 , 22, 025007	3.4	17
46	Multi-objective optimisation of support characteristics of rotor bearing systems. <i>International Journal of Structural Engineering</i> , 2013 , 4, 361	0.9	6
45	Identification of crack in a structural member using improved radial basis function (IRBF) neural networks. <i>International Journal of Intelligent Computing and Cybernetics</i> , 2013 , 6, 182-211	2.2	5
44	Damage Identification of Multimember Structure using Improved Neural Networks. <i>International Journal of Manufacturing, Materials, and Mechanical Engineering</i> , 2013 , 3, 57-75	0.5	
43	Pyroelectric and pyromagnetic effects on behavior of magneto-electro-elastic plate. <i>Coupled Systems Mechanics</i> , 2013 , 2, 1-22		31
42	Effect of displacement current in magneto-electro-elastic plates subjected to dynamic loading. <i>International Journal of Mechanics and Materials in Design</i> , 2012 , 8, 349-358	2.5	1
41	Crack identification using combined power flow and acceleration matching technique. <i>Inverse Problems in Science and Engineering</i> , 2012 , 20, 1239-1257	1.3	7
40	Dynamic analysis of magneto-electro-elastic cylindrical shells by quasi-static and fully dynamic electromagnetic theories. <i>Multidiscipline Modeling in Materials and Structures</i> , 2012 , 8, 403-416	2.2	1
39	Structural Damage Identification Using Improved RBF Neural Networks in Frequency Domain. <i>Advances in Structural Engineering</i> , 2012 , 15, 1689-1703	1.9	11
38	Studies on magneto-electro-elastic cantilever beam under thermal environment. <i>Coupled Systems Mechanics</i> , 2012 , 1, 205-217		24
37	TRANSIENT DYNAMIC BEHAVIOR OF TWO PHASE MAGNETO-ELECTRO-ELASTIC SENSORS BONDED TO ELASTIC RECTANGULAR PLATES. <i>International Journal on Smart Sensing and Intelligent Systems</i> , 2012 , 5, 645-672	0.4	8
36	Structural Identification Based on Transient Power Flows using Particle Swarm Optimization. <i>International Journal of Swarm Intelligence Research</i> , 2012 , 3, 61-82	1.1	
35	Dynamic Response of Multiphase Magneto-electro-elastic Sensors Using 3D Magnetic Vector Potential Approach. <i>IEEE Sensors Journal</i> , 2011 , 11, 2169-2176	4	16
34	Magnetic Scalar and Vector Potential Approaches in Dynamic Response Studies of Magneto-Electro-Elastic Plates. <i>Ferroelectrics</i> , 2011 , 413, 381-398	0.6	1
33	Dynamic behavior of magnetostrictive/piezoelectric laminate cylindrical shells due to electromagnetic force. <i>Journal of Mechanics of Materials and Structures</i> , 2011 , 6, 915-924	1.2	1
32	Application of a hybrid of particle swarm and genetic algorithm for structural damage detection. <i>Inverse Problems in Science and Engineering</i> , 2010 , 18, 997-1021	1.3	33

31	A hybrid neural network strategy for identification of structural parameters. <i>Structure and Infrastructure Engineering</i> , 2010 , 6, 379-391	2.9	13
30	Finite element formulation using magnetic vector potential approach: effects of displacement current in magneto-electro-elastic cylindrical shells. <i>Smart Materials and Structures</i> , 2010 , 19, 015009	3.4	4
29	The transient dynamic response of multiphase magneto-electroelastic sensors bonded to a shell structure. <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , 2010 , 224, 123-132	1.3	
28	Manoeuvre load alleviation using multi-objective optimisation for combat aircraft wing. <i>International Journal of Design Engineering</i> , 2010 , 3, 195	0.5	1
27	Multi-Objective Optimization Methods Applied for Manoeuvre Load Control on Combat Aircraft wing. <i>International Journal of Aerospace Innovations</i> , 2010 , 2, 189-206		1
26	Transient Dynamic Response of Cantilever Magneto-Electro-Elastic Beam Using Finite Elements. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2009 , 10, 173-185 ^{0.7}		25
25	A hybrid neural network strategy for the identification of structural damage using time domain responses. <i>IES Journal Part A: Civil and Structural Engineering</i> , 2009 , 2, 17-34		3
24	TIME DOMAIN IDENTIFICATION OF STRUCTURAL PARAMETERS AND INPUT TIME HISTORY USING A SUBSTRUCTURAL APPROACH. <i>International Journal of Structural Stability and Dynamics</i> , 2009 , 09, 243-265 ^{1.9}		22
23	Studies on Magnetoelectric Effect for Magneto-Electro-Elastic Cylinder using Finite Element Method. <i>Multidiscipline Modeling in Materials and Structures</i> , 2009 , 5, 307-310	2.2	9
22	Harmonic Response of Three-phase Magneto-electro-elastic Beam Under Mechanical, Electrical and Magnetic Environment. <i>Journal of Intelligent Material Systems and Structures</i> , 2009 , 20, 1203-1220	2.3	17
21	Behaviour of magneto-electro-elastic sensors under transient mechanical loading. <i>Sensors and Actuators A: Physical</i> , 2009 , 150, 46-55	3.9	38
20	Parametric Identification of Structures with Nonlinearities Using Global and Substructure Approaches in the Time Domain. <i>Advances in Structural Engineering</i> , 2009 , 12, 195-210	1.9	11
19	Transient response of magneto-electro-elastic simply supported cylinder using finite element. <i>Journal of Mechanics of Materials and Structures</i> , 2008 , 3, 375-389	1.2	16
18	Comparative studies of the transient response for PECP, MSCP, Barium Titanate, magneto-electro-elastic finite cylindrical shell under constant internal pressure using finite element method. <i>Finite Elements in Analysis and Design</i> , 2008 , 44, 89-104	2.2	14
17	Parametric Estimation Of Nonlinear 3D Of System Using Genetic Algorithm In Time Domain. <i>Springer Proceedings in Physics</i> , 2008 , 223-229	0.2	
16	PARAMETRIC IDENTIFICATION OF NONLINEAR DYNAMIC SYSTEMS USING COMBINED LEVENBERG-MARQUARDT AND GENETIC ALGORITHM. <i>International Journal of Structural Stability and Dynamics</i> , 2007 , 07, 715-725	1.9	9
15	Propulsion shaft alignment measurements on warships afloat and alignment solution using multi-objective optimisation. <i>Journal of Marine Engineering and Technology</i> , 2007 , 6, 39-49	1.3	2
14	VIBRATIONAL ENERGIES OF MEMBERS IN STRUCTURAL NETWORKS FITTED WITH TUNED VIBRATION ABSORBERS. <i>International Journal of Structural Stability and Dynamics</i> , 2006 , 06, 269-284	1.9	7

13	Stiffness Identification by a Substructural Approach in Frequency Domain. <i>International Journal of Structural Stability and Dynamics</i> , 2003 , 03, 267-281	1.9	7
12	Substructural Identification Method without Interface Measurement. <i>Journal of Engineering Mechanics - ASCE</i> , 2003 , 129, 769-776	2.4	64
11	Application of the energy flow method to vibration control of buildings with multiple tuned liquid dampers. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2002 , 90, 1893-1906	3.7	24
10	Building (Vibration control). <i>Wind Engineers JAWE</i> , 2001 , 2001, 429-456	0	
9	A STUDY OF THE DYNAMIC STRESS CONCENTRATION FACTORS OF A FLAT PLATE FOR SEA APPLICATIONS. <i>Journal of Sound and Vibration</i> , 1998 , 217, 97-111	3.9	5
8	VIBRATIONAL ENERGY FLOW ANALYSIS USING A SUBSTRUCTURE APPROACH: THE APPLICATION OF RECEPTANCE THEORY TO FEA AND SEA. <i>Journal of Sound and Vibration</i> , 1997 , 201, 491-513	3.9	20
7	A study of the vibrational energies of two coupled beams by finite element and green function (receptance) methods. <i>Journal of Sound and Vibration</i> , 1995 , 181, 801-838	3.9	21
6	Energy flow predictions in a structure of rigidly joined beams using receptance theory. <i>Journal of Sound and Vibration</i> , 1995 , 185, 867-890	3.9	31
5	Static and dynamic flexural behaviour of printed polylactic acid with thermal annealing: parametric optimisation and empirical modelling. <i>International Journal of Advanced Manufacturing Technology</i> , 1	3.2	0
4	Crack damage detection of structures using spectral transfer matrix. <i>Structural Health Monitoring</i> , 147592, 172097928	4.1	
3	A two stage neural network for choosing optimal ejection parameters in low altitude seat ejection based on novel injury parameter. <i>Optimization and Engineering</i> , 1	2.1	
2	Synthesis of landing dynamics on land-base high performance aircraft considering multi-variate landing conditions. <i>Mechanics Based Design of Structures and Machines</i> , 1-20	1.7	
1	A four bar mechanism as dynamic magnifier for improved performance of multimodal piezoelectric harvester beams. <i>European Physical Journal: Special Topics</i> , 1	2.3	0