Shankar Krishnapillai

List of Publications by Citations

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	Effect of high strain rate on glass/carbon/hybrid fiber reinforced epoxy laminated composites. *Composites Part B: Engineering*, **2016**, 100, 125-135	10	93
119	Heat extraction from Non-Convective and Lower Convective Zones of the solar pond: A transient study. *Solar Energy*, **2013**, 97, 517-528	6.8	64
118	Substructural Identification Method without Interface Measurement. *Journal of Engineering Mechanics - ASCE*, **2003**, 129, 769-776	2.4	64
117	Reliability analysis of tensile strengths using Weibull distribution in glass/epoxy and carbon/epoxy composites. *Composites Part B: Engineering*, **2018**, 133, 129-144	10	55
116	Behaviour of magneto-electro-elastic sensors under transient mechanical loading. *Sensors and Actuators A: Physical*, **2009**, 150, 46-55	3.9	38
115	Vibration of simply supported beams under a single moving load: A detailed study of cancellation phenomenon. *International Journal of Mechanical Sciences*, **2015**, 99, 40-47	5.5	35
114	Statistical analysis of the tensile strength of GFRP, CFRP and hybrid composites. *Thin-Walled Structures*, **2018**, 126, 150-161	4.7	33
113	Application of a hybrid of particle swarm and genetic algorithm for structural damage detection. *Inverse Problems in Science and Engineering*, **2010**, 18, 997-1021	1.3	33
112	Energy flow predictions in a structure of rigidly joined beams using receptance theory. *Journal of Sound and Vibration*, **1995**, 185, 867-890	3.9	31
111	Pyroelectric and pyromagnetic effects on behavior of magneto-electro-elastic plate. *Coupled Systems Mechanics*, **2013**, 2, 1-22		31
110	Transient Dynamic Response of Cantilever Magneto-Electro-Elastic Beam Using Finite Elements. *International Journal for Computational Methods in Engineering Science and Mechanics*, **2009**, 10, 173-185	0.7	25
109	Application of the energy flow method to vibration control of buildings with multiple tuned liquid dampers. *Journal of Wind Engineering and Industrial Aerodynamics*, **2002**, 90, 1893-1906	3.7	24
108	Studies on magneto-electro-elastic cantilever beam under thermal environment. *Coupled Systems Mechanics*, **2012**, 1, 205-217		24
107	TIME DOMAIN IDENTIFICATION OF STRUCTURAL PARAMETERS AND INPUT TIME HISTORY USING A SUBSTRUCTURAL APPROACH. *International Journal of Structural Stability and Dynamics*, **2009**, 09, 243-265	1.9	22
106	Modeling and optimization of passive and semi-active suspension systems for passenger cars to improve ride comfort and isolate engine vibration. *JVC/Journal of Vibration and Control*, **2013**, 19, 1471-1479	2	21
105	A study of the vibrational energies of two coupled beams by finite element and green function (receptance) methods. *Journal of Sound and Vibration*, **1995**, 181, 801-838	3.9	21
104	Multi-objective optimization of the two-stage helical gearbox with tribological constraints. *Mechanism and Machine Theory*, **2019**, 138, 38-57	4	20

103	VIBRATIONAL ENERGY FLOW ANALYSIS USING A SUBSTRUCTURE APPROACH: THE APPLICATION OF RECEPTANCE THEORY TO FEA AND SEA. *Journal of Sound and Vibration*, **1997**, 201, 491-513	3.9	20
102	Vibration suppression of printed circuit boards using an external particle damper. *Journal of Sound and Vibration*, **2016**, 366, 98-116	3.9	18
101	Joint damage identification using Improved Radial Basis Function (IRBF) networks in frequency and time domain. *Applied Soft Computing Journal*, **2013**, 13, 3366-3379	7.5	17
100	Pyroelectric and pyromagnetic effects on multiphase magneto▢electro▢elastic cylindrical shells for axisymmetric temperature. *Smart Materials and Structures*, **2013**, 22, 025007	3.4	17
99	Harmonic Response of Three-phase Magneto-electro-elastic Beam Under Mechanical, Electrical and Magnetic Environment. *Journal of Intelligent Material Systems and Structures*, **2009**, 20, 1203-1220	2.3	17
98	Dynamic Response of Multiphase Magnetoelectroelastic Sensors Using 3D Magnetic Vector Potential Approach. *IEEE Sensors Journal*, **2011**, 11, 2169-2176	4	16
97	Transient response of magneto-electro-elastic simply supported cylinder using finite element. *Journal of Mechanics of Materials and Structures*, **2008**, 3, 375-389	1.2	16
96	High velocity impact damage investigation of carbon/epoxy/clay nanocomposites using 3D Computed Tomography. *Materials Today: Proceedings*, **2018**, 5, 16946-16955	1.4	16
95	Digital image processing and thermo-mechanical response of neat epoxy and different laminate orientations of fiber reinforced polymer composites for vibration isolation applications. *International Journal of Polymer Analysis and Characterization*, **2018**, 23, 684-709	1.7	15
94	Soft soil track interaction modeling in single rigid body tracked vehicle models. *Journal of Terramechanics*, **2018**, 77, 1-14	2.2	14
93	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. *Finite Elements in Analysis and Design*, **2008**, 44, 89-104	2.2	14
92	A hybrid neural network strategy for identification of structural parameters. *Structure and Infrastructure Engineering*, **2010**, 6, 379-391	2.9	13
91	Quadratic serendipity finite elements over convex polyhedra. *International Journal for Numerical Methods in Engineering*, **2018**, 113, 109-129	2.4	12
90	Improved Complex-valued Radial Basis Function (ICRBF) neural networks on multiple crack identification. *Applied Soft Computing Journal*, **2015**, 28, 285-300	7.5	11
89	Structural Damage Identification Using Improved RBF Neural Networks in Frequency Domain. *Advances in Structural Engineering*, **2012**, 15, 1689-1703	1.9	11
88	Parametric Identification of Structures with Nonlinearities Using Global and Substructure Approaches in the Time Domain. *Advances in Structural Engineering*, **2009**, 12, 195-210	1.9	11
87	Damage identification using combined transient power flow balance and acceleration matching technique. *Structural Control and Health Monitoring*, **2014**, 21, 135-155	4.5	10
86	Effect of Fiber Orientation on Carbon/Epoxy and Glass/Epoxy Composites Subjected to Shear and Bending. *Solid State Phenomena*, **2017**, 267, 103-108	0.4	9

85	Advanced 3D and 2D damage assessment of low velocity impact response of glass and Kevlar fiber reinforced epoxy hybrid composites. *Advances in Materials and Processing Technologies*, **2018**, 4, 493-510	0.8	9
84	System identification of a composite plate using hybrid response surface methodology and particle swarm optimization in time domain. *Measurement: Journal of the International Measurement Confederation*, **2014**, 55, 499-511	4.6	9
83	Studies on Magnetoelectric Effect for Magneto-Electro-Elastic Cylinder using Finite Element Method. *Multidiscipline Modeling in Materials and Structures*, **2009**, 5, 307-310	2.2	9
82	PARAMETRIC IDENTIFICATION OF NONLINEAR DYNAMIC SYSTEMS USING COMBINED LEVENBERGMARQUARDT AND GENETIC ALGORITHM. *International Journal of Structural Stability and Dynamics*, **2007**, 07, 715-725	1.9	9
81	Effect of nanoclay and different impactor shapes on glass/epoxy composites subjected to quasi-static punch shear loading. *Advances in Materials and Processing Technologies*, **2018**, 4, 345-357	0.8	8
80	Multiple crack damage detection of structures using the two crack transfer matrix. *Structural Health Monitoring*, **2014**, 13, 548-561	4.4	8
79	Prediction of Particle Damping Parameters Using RBF Neural Network **2014**, 5, 335-344		8
78	Identification of structural parameters using consistent mass transfer matrix. *Inverse Problems in Science and Engineering*, **2014**, 22, 436-457	1.3	8
77	STRUCTURAL PARAMETER IDENTIFICATION USING DAMPED TRANSFER MATRIX AND STATE VECTORS. *International Journal of Structural Stability and Dynamics*, **2013**, 13, 1250076	1.9	8
76	TRANSIENT DYNAMIC BEHAVIOR OF TWO PHASE MAGNETO-ELECTRO-ELASTIC SENSORS BONDED TO ELASTIC RECTANGULAR PLATES. *International Journal on Smart Sensing and Intelligent Systems*, **2012**, 5, 645-672	0.4	8
75	Macro geometry multi-objective optimization of planetary gearbox considering scuffing constraint. *Mechanism and Machine Theory*, **2020**, 154, 104045	4	8
74	Probability-based Studies on the Tensile Strength of GFRP, CFRP and Hybrid Composites. *Procedia Engineering*, **2017**, 173, 763-770		7
73	Application of particle damper on electronic packages for spacecraft. *Acta Astronautica*, **2016**, 127, 260-270		7
72	Crack identification using combined power flow and acceleration matching technique. *Inverse Problems in Science and Engineering*, **2012**, 20, 1239-1257	1.3	7
71	VIBRATIONAL ENERGIES OF MEMBERS IN STRUCTURAL NETWORKS FITTED WITH TUNED VIBRATION ABSORBERS. *International Journal of Structural Stability and Dynamics*, **2006**, 06, 269-284	1.9	7
70	Stiffness Identification by a Substructural Approach in Frequency Domain. *International Journal of Structural Stability and Dynamics*, **2003**, 03, 267-281	1.9	7
69	High-velocity impact response of titanium-based fiber metal laminates. Part II: Analytical modeling. *International Journal of Impact Engineering*, **2021**, 152, 103853	4	7
68	Application of RBF neural network in prediction of particle damping parameters from experimental data. *JVC/Journal of Vibration and Control*, **2017**, 23, 909-929	2	6

67	Multi-objective optimisation of support characteristics of rotor bearing systems. *International Journal of Structural Engineering*, **2013**, 4, 361	0.9	6
66	A novel passive mechanism to improve power output in 2DOF piezoelectric vibration energy harvester. *Smart Materials and Structures*, **2019**, 28, 115016	3.4	6
65	Influence of fibre orientation and thickness on the response of CFRP composites subjected to high velocity impact loading. *Advances in Materials and Processing Technologies*, **2018**, 4, 120-131	0.8	6
64	Experimental investigation of particle damper-based vibration suppression in printed circuit board for spacecraft applications. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, **2016**, 230, 1299-1311	0.9	5
63	Structural damage identification using transfer matrix with lumped crack properties. *Inverse Problems in Science and Engineering*, **2016**, 24, 422-447	1.3	5
62	Vibration of Nonuniform Beams Under Moving Point Loads: An Approximate Analytical Solution in Time Domain. *International Journal of Structural Stability and Dynamics*, **2017**, 17, 1750035	1.9	5
61	Structural crack damage detection using transfer matrix and state vector. *Measurement: Journal of the International Measurement Confederation*, **2015**, 68, 310-327	4.6	5
60	Identification of crack in a structural member using improved radial basis function (IRBF) neural networks. *International Journal of Intelligent Computing and Cybernetics*, **2013**, 6, 182-211	2.2	5
59	A STUDY OF THE DYNAMIC STRESS CONCENTRATION FACTORS OF A FLAT PLATE FOR SEA APPLICATIONS. *Journal of Sound and Vibration*, **1998**, 217, 97-111	3.9	5
58	High strain rate studies for different laminate configurations of bi-directional glass/epoxy and carbon/epoxy composites using DIC. *Structures*, **2020**, 27, 2451-2465	3.4	5
57	High-velocity impact response of titanium-based fiber metal laminates. Part I: experimental investigations. *International Journal of Impact Engineering*, **2021**, 152, 103845	4	5
56	Non-uniform Euler-Bernoulli beams under a single moving oscillator: An approximate analytical solution in time domain. *Journal of Mechanical Science and Technology*, **2016**, 30, 4479-4487	1.6	4
55	Identification of structural parameters including crack using one dimensional PZT patch model. *Inverse Problems in Science and Engineering*, **2017**, 25, 1216-1241	1.3	4
54	Finite element formulation using magnetic vector potential approach: effects of displacement current in magneto-electro-elastic cylindrical shells. *Smart Materials and Structures*, **2010**, 19, 015009	3.4	4
53	Prediction of nonlinear viscoelastic behaviour of simulative soil for deep-sea sediment using a thermodynamically compatible model. *Inverse Problems in Science and Engineering*, **2020**, 28, 777-795	1.3	4
52	An Improved Multi-Objective Particle Swarm Optimization Based on Utopia Point Guided Search. *International Journal of Applied Metaheuristic Computing*, **2018**, 9, 71-96	0.8	4
51	Comparative Study of a Neat Epoxy and Unidirectional Carbon/Epoxy Composites under Tensile and Impact Loading. *Solid State Phenomena*, **2017**, 267, 87-92	0.4	3
50	Sub-Structural Parameter Identification Including Cracks of Beam Structure Using PZT Patch. *International Journal for Computational Methods in Engineering Science and Mechanics*, **2019**, 20, 115-129	0.7	3

49	Study of pilot's comfortness in the cockpit seat of a flight simulator. *International Journal of Industrial Ergonomics*, **2019**, 71, 1-7	2.9	3
48	Multi-objective optimisation of a small aircraft turbine engine rotor system with self-updating Rayleigh damping model and frequency-dependent bearing-pedestal model. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2019**, 233, 5710-5723	1.3	3
47	Multi-Objective Optimization of Spur Gearbox with Inclusion of Tribological Aspects. *Journal of Friction and Wear*, **2017**, 38, 430-436	0.9	3
46	A hybrid neural network strategy for the identification of structural damage using time domain responses. *IES Journal Part A: Civil and Structural Engineering*, **2009**, 2, 17-34		3
45	Pyroeffects on magneto-electro-elastic sensor bonded on mild steel cylindrical shell. *Smart Structures and Systems*, **2015**, 16, 537-554		3
44	Pyroeffects on Magneto-Electro-Elastic Sensor patch subjected to thermal load. *Smart Structures and Systems*, **2017**, 19, 299-307		3
43	Experimental and theoretical investigation of a unidirectional glass/epoxy composites under tensile and impact loading. *Materials Today: Proceedings*, **2018**, 5, 25174-25184	1.4	3
42	Multi-objective Goal Programming for Low Altitude Seat Ejections with Fuzzy Logic-Based Decision-making. *Human Factors and Mechanical Engineering for Defense and Safety*, **2020**, 4, 1	1.7	2
41	An Improved Multi-Objective Particle Swarm Optimization Algorithm Based on Adaptive Local Search. *International Journal of Applied Evolutionary Computation*, **2017**, 8, 1-29	0.6	2
40	Investigation of nonlinear landing gear behavior and dynamic responses on high performance aircraft. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, **2019**, 233, 5674-5688	0.9	2
39	Propulsion shaft alignment measurements on warships afloat and alignment solution using multi-objective optimisation. *Journal of Marine Engineering and Technology*, **2007**, 6, 39-49	1.3	2
38	PYROEFFECTS ON MULTIPHASE MAGNETO-ELECTRO-ELASTIC SENSOR PATCH BONDED ON MILD STEEL PLATE. *International Journal on Smart Sensing and Intelligent Systems*, **2014**, 7, 1134-1155	0.4	2
37	A constitutive model for bentonite-water mixture and the effect of wall slip boundary conditions on its mechanical response. *International Journal of Non-Linear Mechanics*, **2020**, 119, 103318	2.8	2
36	Multi-objective optimum design of an aero engine rotor system using hybrid genetic algorithm. *IOP Conference Series: Materials Science and Engineering*, **2019**, 624, 012025	0.4	2
35	Effect of Displacement Current in Magneto-Electro-Elastic 3D Beam Subjected to Dynamic Loading. *Mechanics of Advanced Materials and Structures*, **2013**, 20, 189-198	1.8	1
34	Optimal trends in Manoeuvre Load Control at subsonic and supersonic flight points for tailless delta wing aircraft. *Aerospace Science and Technology*, **2013**, 24, 128-135	4.9	1
33	Dynamic Thermal Analyses of a Structurally Reconfigured Electronics Package Onboard Mini Satellite. *Applied Mechanics and Materials*, **2014**, 592-594, 2117-2121	0.3	1
32	Effect of displacement current in magneto-electro-elastic plates subjected to dynamic loading. *International Journal of Mechanics and Materials in Design*, **2012**, 8, 349-358	2.5	1

31	Magnetic Scalar and Vector Potential Approaches in Dynamic Response Studies of Magneto-Electro-Elastic Plates. *Ferroelectrics*, **2011**, 413, 381-398	0.6	1
30	Dynamic analysis of magneto-electro-elastic cylindrical shells by quasi-static and fully dynamic electromagnetic theories. *Multidiscipline Modeling in Materials and Structures*, **2012**, 8, 403-416	2.2	1
29	Manoeuvre load alleviation using multi-objective optimisation for combat aircraft wing. *International Journal of Design Engineering*, **2010**, 3, 195	0.5	1
28	Multi-Objective Optimization Methods Applied for Manoeuvre Load Control on Combat Aircraft wing. *International Journal of Aerospace Innovations*, **2010**, 2, 189-206		1
27	Identification of Nonlinear Structural Parameters Using Combined Power Flow and Acceleration Matching Approaches. *Lecture Notes in Mechanical Engineering*, **2020**, 1139-1149	0.4	1
26	Dynamic behavior of magnetostrictive/piezoelectric laminate cylindrical shells due to electromagnetic force. *Journal of Mechanics of Materials and Structures*, **2011**, 6, 915-924	1.2	1
25	Three-objective optimization of aircraft secondary power system rotor dynamics. *Mechanics Based Design of Structures and Machines*, **2020**, 1-17	1.7	1
24	Multiobjective optimization of rotor-bearing systems with an investigation of goal programming approach. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2019**, 233, 4270-4287	1.3	1
23	Numerical Study of Traction at Grouser-Soft Seabed Interface Incorporating Experimentally Validated Constitutive Model. *Lecture Notes in Mechanical Engineering*, **2022**, 1079-1090	0.4	0
22	Static and dynamic flexural behaviour of printed polylactic acid with thermal annealing: parametric optimisation and empirical modelling. *International Journal of Advanced Manufacturing Technology*, 1	3.2	0
21	Non-linear structural parameter identification using instantaneous power flow balance approach. *Inverse Problems in Science and Engineering*, **2020**, 1-27	1.3	0
20	A four bar mechanism as dynamic magnifier for improved performance of multimodal piezoelectric harvester beams. *European Physical Journal: Special Topics*, 1	2.3	0
19	An improved spinal injury parameter model for underbody impulsive loading scenarios. *International Journal for Numerical Methods in Biomedical Engineering*, **2020**, 36, e3307	2.6	
18	Damage identification using combined acceleration and voltage matching with one-dimensional PZT patch model. *Multidiscipline Modeling in Materials and Structures*, **2018**, 14, 40-64	2.2	
17	Landing Response Analysis on High-Performance Aircraft* Using Estimated Touchdown States. *SAE International Journal of Aerospace*, **2019**, 12, 23-39	0.3	
16	Detection of Cracks in Structures Using Two Crack Transfer Matrix. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 1084-1091		
15	Vector evaluated particle swarm optimisation for multi-objective structural system identification. *International Journal of Mathematical Modelling and Numerical Optimisation*, **2015**, 6, 40	0.3	
14	Damage Identification of Multimember Structure using Improved Neural Networks. *International Journal of Manufacturing, Materials, and Mechanical Engineering*, **2013**, 3, 57-75	0.5	

13	The transient dynamic response of multiphase magneto-electroelastic sensors bonded to a shell structure. *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications*, **2010**, 224, 123-132	1.3
12	Parametric Estimation Of Nonlinear 3D Of System Using Genetic Algorithm In Time Domain. *Springer Proceedings in Physics*, **2008**, 223-229	0.2
11	Clustering in Pareto Front: Application on an Aero Engine Rotor-Bearing System for Improved Design. *Lecture Notes in Mechanical Engineering*, **2021**, 141-153	0.4
10	Multi-Objective Optimization of a Maneuvering Small Aircraft Turbine Engine Rotor System. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2021**, 103, 1	2.9
9	Identification of Nonlinear Joint Interface Parameters Using Instantaneous Power Flow Balance Approach. *Springer Proceedings in Mathematics and Statistics*, **2021**, 183-191	0.2
8	Parametric Identification of Nonlinear Structures Using Particle Swarm Optimization Based on Power Flow Balance Criteria. *Springer Proceedings in Mathematics and Statistics*, **2021**, 249-257	0.2
7	Building (Vibration control). *Wind Engineers JAWE*, **2001**, 2001, 429-456	0
6	Crack damage detection of structures using spectral transfer matrix. *Structural Health Monitoring*, 147592172097928	2.1
5	A Novel Passive Mechanism to Improve Induced Strain in Two-DOF Piezoelectric Energy Harvester. *Lecture Notes in Mechanical Engineering*, **2020**, 1109-1116	0.4
4	Structural Identification Based on Transient Power Flows using Particle Swarm Optimization. *International Journal of Swarm Intelligence Research*, **2012**, 3, 61-82	1.1
3	A two stage neural network for choosing optimal ejection parameters in low altitude seat ejection based on novel injury parameter. *Optimization and Engineering*, 1	2.1
2	Synthesis of landing dynamics on land-base high performance aircraft considering multi-variate landing conditions. *Mechanics Based Design of Structures and Machines*, 1-20	1.7
1	State Estimation for Landing Maneuver on High Performance Aircraft. *Journal of the Institution of Engineers (India): Series C*, **2019**, 100, 187-202	0.9