

Marcelo Areias Trindade

List of Publications by Year in descending order

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63
papers

1,437
citations

361413

20
h-index

330143

37
g-index

66
all docs

66
docs citations

66
times ranked

765
citing authors

#	ARTICLE	IF	CITATIONS
1	A Unified Beam Finite Element Model for Extension and Shear Piezoelectric Actuation Mechanisms. Journal of Intelligent Material Systems and Structures, 1997, 8, 1012-1025.	2.5	167
2	Modeling of Frequency-Dependent Viscoelastic Materials for Active-Passive Vibration Damping. Journal of Vibration and Acoustics, Transactions of the ASME, 2000, 122, 169-174.	1.6	115
3	Hybrid Active-Passive Damping Treatments Using Viscoelastic and Piezoelectric Materials: Review and Assessment. JVC/Journal of Vibration and Control, 2002, 8, 699-745.	2.6	110
4	New Shear Actuated Smart Structure Beam Finite Element. AIAA Journal, 1999, 37, 378-383.	2.6	100
5	PIEZOELECTRIC ACTIVE VIBRATION CONTROL OF DAMPED SANDWICH BEAMS. Journal of Sound and Vibration, 2001, 246, 653-677.	3.9	91
6	Effective Electromechanical Coupling Coefficients of Piezoelectric Adaptive Structures: Critical Evaluation and Optimization. Mechanics of Advanced Materials and Structures, 2009, 16, 210-223.	2.6	85
7	Piezoelectric actuation mechanisms for intelligent sandwich structures. Smart Materials and Structures, 2000, 9, 328-335.	3.5	75
8	Karhunen's decomposition of coupled axial/bending vibrations of beams subject to impacts. Journal of Sound and Vibration, 2005, 279, 1015-1036.	3.9	58
9	Finite element modelling of hybrid active-passive vibration damping of multilayer piezoelectric sandwich beams—part I: Formulation. International Journal for Numerical Methods in Engineering, 2001, 51, 835-854.	2.8	57
10	Performance analysis of proportional-integral feedback control for the reduction of stick-slip-induced torsional vibrations in oil well drillstrings. Journal of Sound and Vibration, 2017, 398, 28-38.	3.9	44
11	Parametric Analysis of the Vibration Control of Sandwich Beams Through Shear-Based Piezoelectric Actuation. Journal of Intelligent Material Systems and Structures, 1999, 10, 377-385.	2.5	36
12	Multimodal passive vibration control of sandwich beams with shunted shear piezoelectric materials. Smart Materials and Structures, 2008, 17, 055015.	3.5	31
13	Modeling and analysis of laminate composite plates with embedded active-passive piezoelectric networks. Journal of Sound and Vibration, 2011, 330, 194-216.	3.9	31
14	Finite element homogenization technique for the characterization of 15 shear piezoelectric macro-fibre composites. Smart Materials and Structures, 2011, 20, 075012.	3.5	29
15	Reduced-Order Finite Element Models of Viscoelastically Damped Beams Through Internal Variables Projection. Journal of Vibration and Acoustics, Transactions of the ASME, 2006, 128, 501-508.	1.6	27
16	Refined sandwich model for the vibration of beams with embedded shear piezoelectric actuators and sensors. Computers and Structures, 2008, 86, 859-869.	4.4	23
17	Finite element characterisation of multilayer piezoelectric macro-fibre composites. Composite Structures. 2016, 151, 47-57.	5.8	23
18	Dynamics of Beams Undergoing Large Rotations Accounting for Arbitrary Axial Deformation. Journal of Guidance, Control, and Dynamics, 2002, 25, 634-643.	2.8	22

#	ARTICLE	IF	CITATIONS
19	Structural vibration control using extension and shear active-passive piezoelectric networks including sensitivity to electrical uncertainties. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2011, 33, 287-301.	1.6	22
20	Obtaining Mode Shapes through the Karhunen-Loève Expansion for Distributed-Parameter Linear Systems. <i>Shock and Vibration</i> , 2002, 9, 177-192.	0.6	21
21	Semi-modal active vibration control of plates using discrete piezoelectric modal filters. <i>Journal of Sound and Vibration</i> , 2015, 351, 17-28.	3.9	20
22	Effect of parametric uncertainties on the performance of a piezoelectric energy harvesting device. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2012, 34, 552-560.	1.6	20
23	Optimization of active-passive damping treatments using piezoelectric and viscoelastic materials. <i>Smart Materials and Structures</i> , 2007, 16, 2159-2168.	3.5	19
24	Finite element characterization and parametric analysis of the nonlinear behaviour of an actual d 15 shear MFC. <i>Acta Mechanica</i> , 2013, 224, 2489-2503.	2.1	18
25	Finite element modelling of hybrid active-passive vibration damping of multilayer piezoelectric sandwich beams” part II: System analysis. <i>International Journal for Numerical Methods in Engineering</i> , 2001, 51, 855-864.	2.8	18
26	Optimization of modal filters based on arrays of piezoelectric sensors. <i>Smart Materials and Structures</i> , 2009, 18, 095046.	3.5	17
27	Parametric analysis of effective material properties of thickness-shear piezoelectric macro-fibre composites. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2012, 34, 352-361.	1.6	15
28	On Higher-Order Modelling of Smart Beams with Embedded Shear-Mode Piezoceramic Actuators and Sensors. <i>Mechanics of Advanced Materials and Structures</i> , 2006, 13, 357-369.	2.6	14
29	Frequency-Dependent Viscoelastic Models for Passive Vibration Isolation Systems. <i>Shock and Vibration</i> , 2002, 9, 253-264.	0.6	13
30	On the numerical integration of rigid body nonlinear dynamics in presence of parameters singularities. <i>Revista Brasileira De Ciencias Mecanicas/Journal of the Brazilian Society of Mechanical Sciences</i> , 2001, 23, 49-62.	0.1	11
31	Finite element analysis of frequency- and temperature-dependent hybrid active-passive vibration damping. <i>Revue Europeenne Des Elements</i> , 2000, 9, 89-111.	0.1	10
32	Simultaneous Extension and Shear Piezoelectric Actuation for Active Vibration Control of Sandwich Beams. <i>Journal of Intelligent Material Systems and Structures</i> , 2007, 18, 591-600.	2.5	10
33	Finite element modeling and parametric analysis of a dielectric elastomer thin-walled cylindrical actuator. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2019, 41, 1.	1.6	9
34	Robust evaluation of stability regions of oil-well drilling systems with uncertain bit-rock nonlinear interaction. <i>Journal of Sound and Vibration</i> , 2020, 483, 115481.	3.9	6
35	Finite element modelling of hybrid active-passive vibration damping of multilayer piezoelectric sandwich beams” part I: Formulation. <i>International Journal for Numerical Methods in Engineering</i> , 2001, 51, 835-854.	2.8	6
36	On the noncollocated control of structures with optimal static output feedback: Initial conditions dependence, sensors placement, and sensitivity analysis. <i>Structural Control and Health Monitoring</i> , 2019, 26, e2407.	4.0	5

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37	Parametric Analysis of the Vibration Control of Sandwich Beams Through Shear-Based Piezoelectric Actuation. Journal of Intelligent Material Systems and Structures, 1999, 10, 377-385.	2.5	5
38	EFFECT OF PARAMETRIC UNCERTAINTIES ON THE EFFECTIVENESS OF DISCRETE PIEZOELECTRIC SPATIAL MODAL FILTERS. , 2013, 3, 523-540.		4
39	Passive and Active Structural Vibration Control. , 2016, , 65-92.		4
40	Finite element modeling and analysis of an atomic force microscope cantilever beam coupled to a piezoceramic base actuator. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2018, 40, 1.	1.6	4
41	Finite element modeling and analysis of adhesive layer effects in surface-bonded piezoelectric sensors and actuators including non-uniform thickness. Mechanics of Advanced Materials and Structures, 2022, 29, 3658-3673.	2.6	4
42	Effect of parametric uncertainties on vibration mitigation with periodically distributed and interconnected piezoelectric patches. Journal of Intelligent Material Systems and Structures, 2021, 32, 971-985.	2.5	3
43	Simplified robust and multiobjective optimization of piezoelectric energy harvesters with uncertain parameters. International Journal of Mechanics and Materials in Design, 2022, 18, 63-85.	3.0	3
44	Finite element modelling of hybrid activeâ€“passive vibration damping of multilayer piezoelectric sandwich beamsâ€“part II: System analysis. International Journal for Numerical Methods in Engineering, 2001, 51, 855-864.	2.8	1
45	The Role of Nonlinear Strain-Displacement Relation on the Geometric Stiffening of Rotating Flexible Beams. , 2001, , .		1
46	On the choice of probability density function for the stochastic bonding stiffness of piezoelectric structures. , 0, , .		1
47	ANÃLISE DO APROVEITAMENTO DE ENERGIA POR DISPOSITIVOS PIEZELÃTRICOS USANDO MODELO ELETROMECANICO DE PLACA E CIRCUITOS RESSONANTES. , 0, , .		1
48	Design and Analysis of a Geometrically Nonlinear Dynamic Vibration Absorber. Journal of Computational and Nonlinear Dynamics, 2020, 15, .	1.2	1
49	SPECIAL ISSUE DEDICATED TO THE 1ST INTERNATIONAL SYMPOSIUM ON UNCERTAINTY QUANTIFICATION AND STOCHASTIC MODELING (UNCERTAINTIES 2012). , 2013, 3, vii-viii.		0
50	Piezoelectric Structural Vibration Control. , 2016, , 289-309.		0
51	Special Issue 2: Uncertainties 2012. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2012, 34, 543-544.	1.6	0
52	MinimizaÃ§Ã£o de vibraÃ§Ãµes torcionais em colunas de perfuraÃ§Ã£o de poÃ§os de petrÃ³leo por leis de controle em funÃ§Ã£o do peso na broca. , 0, , .		0
53	Quantification of Uncertainties in Experimental Modal Parameters Estimation: An Industrial Case Study. , 0, , .		0
54	Effect of bit-rock interaction uncertainties on the torsional stability regions of an oil-well drilling system. , 0, , .		0

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55	Analysis of piezoelectric sensor networks for spatial modal filters and active vibration control. , 2017, , .		0
56	Robust design and uncertainty analysis of an energy harvesting resonant device. , 2017, , .		0
57	Optimal placement of sensors for the output feedback control of structures using quadratic performance criterion. , 2017, , .		0
58	DESIGN AND ANALYSIS OF ACTIVE CONTROL TECHNIQUES FOR STICK-SLIP SUPPRESSION IN ROTARY DRILLING SYSTEMS. , 2019, , .		0
59	Effect of piezoelectric patches segmentation and adhesive layer properties on the electromechanical coupling of smart structures. , 2019, , .		0
60	ROBUST DESIGN OF ENERGY HARVESTING RESONANT DEVICES BY MULTI-OBJECTIVE OPTIMIZATION. , 2019, , .		0
61	Evaluation of Effective Electromechanical Coupling Coefficient of Piezoelectric Structures Considering Viscoelastic Properties of Adhesive Layer. , 2019, , .		0
62	Closed-loop multiobjective optimization of piezoelectric patches for active vibration control of a rectangular plate. , 2019, , .		0
63	Special Section on Risk Analysis and Management of Complex Systems. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2019, 5, .	1.1	0