

Ayech Benjeddou

List of Publications by Year in descending order

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80
papers

2,458
citations

304743

22
h-index

206112

48
g-index

85
all docs

85
docs citations

85
times ranked

1246
citing authors

#	ARTICLE	IF	CITATIONS
1	A package-less SAW RFID sensor concept for structural health monitoring. <i>Mechanics of Advanced Materials and Structures</i> , 2021, 28, 648-655.	2.6	5
2	Mathematical analysis of static and dynamic three-dimensional models of thermo-electro-magneto-elastic solids. <i>Mathematics and Mechanics of Solids</i> , 2021, 26, 874-904.	2.4	0
3	Distributed transfer function-based unified static solutions for piezoelectric short/open-circuit sensing and voltage/charge actuation of beam cantilevers. <i>Acta Mechanica</i> , 2021, 232, 1025-1044.	2.1	1
4	General numerical implementation of a new piezoelectric shunt tuning method based on the effective electromechanical coupling coefficient. <i>Mechanics of Advanced Materials and Structures</i> , 2020, 27, 1908-1922.	2.6	17
5	Modal effective electromechanical coupling coefficient of shear-mode piezoceramic sandwich cantilevers with segmented multicore: Experimental and numerical assessments. <i>JVC/Journal of Vibration and Control</i> , 2020, , 107754632097290.	2.6	0
6	Smart structures and materials: Vibration and control. <i>JVC/Journal of Vibration and Control</i> , 2020, 26, 1109-1109.	2.6	0
7	New Hamiltonian Semi-analytical Approach for 3D Solution of Piezoelectric Smart Composites. <i>Advanced Structured Materials</i> , 2020, , 15-40.	0.5	0
8	Field-dependent nonlinear piezoelectricity: a focused review. <i>International Journal of Smart and Nano Materials</i> , 2018, 9, 68-84.	4.2	23
9	High Frequency Optical Probe for BAW/SAW Devices. , 2018, , .		1
10	Optimal piezoelectric resistive-inductive shunt damping of plates with residual mode correction. <i>Journal of Intelligent Material Systems and Structures</i> , 2018, 29, 3346-3370.	2.5	17
11	Smart structures, materials and nano technology in engineering. <i>International Journal of Smart and Nano Materials</i> , 2018, 9, 85-87.	4.2	4
12	Analysis of the sensitivity to pressure and temperature of a membrane based SAW sensor. <i>International Journal of Smart and Nano Materials</i> , 2017, 8, 95-109.	4.2	17
13	Robust inverse identification of the effective three-dimensional elastic behaviour of a piezoceramic patch bonded to a multilayer unidirectional fibre composite. <i>Composite Structures</i> , 2016, 151, 58-69.	5.8	1
14	Finite element characterisation of multilayer piezoelectric macro-fibre composites. <i>Composite Structures</i> , 2016, 151, 47-57.	5.8	23
15	Slender piezoelectric beams with resistive-inductive electrodes - modeling and axial wave propagation. <i>Smart Structures and Systems</i> , 2016, 18, 335-354.	1.9	3
16	Transverse dynamics of slender piezoelectric bimorphs with resistive-inductive electrodes. <i>Smart Structures and Systems</i> , 2016, 18, 355-374.	1.9	5
17	Approximate evaluations and simplified analyses of shear- mode piezoelectric modal effective electromechanical coupling. <i>Advances in Aircraft and Spacecraft Science</i> , 2015, 2, 275-302.	0.5	3
18	Modal effective electromechanical coupling approximate evaluations and simplified analyses: numerical and experimental assessments. <i>Acta Mechanica</i> , 2014, 225, 2721-2742.	2.1	10

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19	Free vibration analysis of moderately thick asymmetric piezoelectric adaptive cantilever beams using the distributed transfer function approach. <i>Journal of Sound and Vibration</i> , 2014, 333, 3339-3355.	3.9	8
20	Robust electromechanical finite element updating for piezoelectric structures effective coupling prediction. <i>Journal of Intelligent Material Systems and Structures</i> , 2014, 25, 137-154.	2.5	5
21	Experimental assessment of the piezoelectric transverse d_{15} shear sensing mechanism. <i>Smart Structures and Systems</i> , 2014, 13, 567-585.	1.9	2
22	Multi-scale mechanics of smart material systems and structures. <i>Acta Mechanica</i> , 2013, 224, 2451-2451.	2.1	1
23	Numerical and experimental characterizations of longitudinally polarized piezoelectric d_{15} shear macro-fiber composites. <i>Acta Mechanica</i> , 2013, 224, 2471-2487.	2.1	21
24	Exact 3D Saint Venant type solutions for piezoelectric d_{15} shear-mode bi-morph and sandwich torsion actuation and sensing problems. <i>Acta Mechanica</i> , 2013, 224, 2505-2527.	2.1	4
25	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
26	Enrichment of linear hexahedral finite elements using rotations of a virtual space fiber. <i>International Journal for Numerical Methods in Engineering</i> , 2013, 95, 46-70.	2.8	13
27	Piezoceramic d_{15} shear-induced direct torsion actuation mechanism: a new representative experimental benchmark. <i>Smart Structures and Systems</i> , 2013, 12, 483-499.	1.9	7
28	Robust inverse identification of piezoelectric and dielectric effective behaviors of a bonded patch to a composite plate. <i>Smart Structures and Systems</i> , 2013, 12, 523-545.	1.9	3
29	Enthalpy - based homogenization procedure for composite piezoelectric modules with integrated electrodes. <i>Smart Structures and Systems</i> , 2013, 12, 579-594.	1.9	2
30	Piezoceramic materials shear response: approximate modal coupling and analysis. <i>Proceedings of SPIE</i> , 2012, , .	0.8	0
31	Piezoelectric d_{15} shear-response-based torsion actuation mechanism: An exact 3D Saint-Venant type solution. <i>International Journal of Smart and Nano Materials</i> , 2012, 3, 82-102.	4.2	17
32	Partial-mixed special finite element for the analysis of multilayer composites and FGM. <i>European Journal of Computational Mechanics</i> , 2012, 21, 103-121.	0.6	3
33	Special finite elements for advanced modelling of engineering problems. <i>European Journal of Computational Mechanics</i> , 2012, 21, 1-3.	0.6	0
34	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
35	Hamiltonian partial mixed finite element-state space symplectic semi-analytical approach for the piezoelectric smart composites and FGM analysis. <i>Acta Mechanica</i> , 2012, 223, 1597-1610.	2.1	8
36	A piezoelectric 3D hexahedral curvilinear finite element based on the space fiber rotation concept. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 90, 87-115.	2.8	9

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37	Assessment of a smart concept for d15 shear piezoceramic direct torsion actuation. European Journal of Computational Mechanics, 2011, 20, 103-124.	0.6	4
38	Semi-analytical free-vibration analysis of piezoelectric adaptive beams using the distributed transfer function approach. Structural Control and Health Monitoring, 2011, 18, 723-736.	4.0	9
39	A ferroelectric and ferroelastic 3D hexahedral curvilinear finite element. International Journal of Solids and Structures, 2011, 48, 87-109.	2.7	15
40	Static experimentations of the piezoceramic d15-shear actuation mechanism for sandwich structures with opposite or same poled patches-assembled core and composite faces. International Journal of Smart and Nano Materials, 2011, , 1-15.	4.2	5
41	Analytical Homogenizations of Piezoceramic d15 Shear Macro-fibre Composites. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2011, , 229-242.	0.2	5
42	Approximate Evaluations of the Modal Effective Electromechanical Coupling Coefficient. , 2010, , 307-315.		1
43	Piezoelectric d ₁₅ shear response-based torsion actuation mechanism: an experimental benchmark and its 3D finite element simulation. International Journal of Smart and Nano Materials, 2010, 1, 224-235.	4.2	18
44	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
45	A FSD- MITC Piezoelectric Shell Finite Element with Ferroelectric Non-linearity. Journal of Intelligent Material Systems and Structures, 2009, 20, 2055-2075.	2.5	17
46	Mixing Rules for the Piezoelectric Properties of Macro Fiber Composites. Journal of Intelligent Material Systems and Structures, 2009, 20, 1475-1482.	2.5	136
47	Piezoceramic shunted damping concept: testing, modelling and correlation. Mecanique Et Industries, 2009, 10, 397-411.	0.2	12
48	New insights in piezoelectric free-vibrations using simplified modeling and analyses. Smart Structures and Systems, 2009, 5, 591-612.	1.9	14
49	Couplage Électromécanique effectif dans les structures piézoélectriques composites. Caractérisations expérimentale et numérique. Revue Des Composites Et Des Materiaux Avances, 2009, 19, 339-364.	0.6	3
50	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
51	Shear-Mode Piezoceramic Advanced Materials and Structures: A State of the Art. Mechanics of Advanced Materials and Structures, 2007, 14, 263-275.	2.6	48
52	On Higher-Order Modelling of Smart Beams with Embedded Shear-Mode Piezoceramic Actuators and Sensors. Mechanics of Advanced Materials and Structures, 2006, 13, 357-369.	2.6	14
53	Preface: Smart Composites. Mechanics of Advanced Materials and Structures, 2006, 13, 355-355.	2.6	1
54	On analytical and finite element modelling of piezoelectric extension and shear bimorphs. Computers and Structures, 2006, 84, 1426-1437.	4.4	18

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55	A heat mixed variational theorem for thermoelastic multilayered composites. Computers and Structures, 2006, 84, 1247-1255.	4.4	11
56	A unified formulation for finite element analysis of piezoelectric adaptive plates. Computers and Structures, 2006, 84, 1494-1505.	4.4	91
57	Mathematical modelling and finite element simulation of smart tubular composites. Computers and Structures, 2006, 84, 2385-2395.	4.4	7
58	Use of shunted shear-mode piezoceramics for structural vibration passive damping. Computers and Structures, 2006, 84, 1415-1425.	4.4	26
59	Free-vibration analysis of laminated plates with embedded shear-mode piezoceramic layers. International Journal of Solids and Structures, 2005, 42, 2059-2088.	2.7	33
60	A Thermopiezoelectric Mixed Variational Theorem for smart multilayered composites. Computers and Structures, 2005, 83, 1266-1276.	4.4	31
61	A Piezoelectric Mixed Variational Theorem for Smart Multilayered Composites. Mechanics of Advanced Materials and Structures, 2005, 12, 1-11.	2.6	29
62	Unified Formulation for Finite Element Thermoelastic Analysis of Multilayered Anisotropic Composite Plates. Journal of Thermal Stresses, 2005, 28, 1031-1065.	2.0	33
63	A sandwich finite element for the analysis of piezoelectric adaptive shells of revolution. Revue Europeenne Des Elements, 2002, 11, 217-231.	0.1	4
64	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
65	Free vibrations of simply-supported piezoelectric adaptive plates: an exact sandwich formulation. Thin-Walled Structures, 2002, 40, 573-593.	5.3	81
66	A two-dimensional closed-form solution for the free-vibrations analysis of piezoelectric sandwich plates. International Journal of Solids and Structures, 2002, 39, 1463-1486.	2.7	51
67	Advances in Hybrid Active-Passive Vibration and Noise Control Via Piezoelectric and Viscoelastic Constrained Layer Treatments. JVC/Journal of Vibration and Control, 2001, 7, 565-602.	2.6	73
68	PIEZOELECTRIC ACTIVE VIBRATION CONTROL OF DAMPED SANDWICH BEAMS. Journal of Sound and Vibration, 2001, 246, 653-677.	3.9	91
69	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
70	Finite element modelling of hybrid active-passive vibration damping of multilayer piezoelectric sandwich beams-part II: System analysis. International Journal for Numerical Methods in Engineering, 2001, 51, 855-864.	2.8	18
71	Vibrations of complex shells of revolution using B-spline finite elements. Computers and Structures, 2000, 74, 429-440.	4.4	48
72	Advances in piezoelectric finite element modeling of adaptive structural elements: a survey. Computers and Structures, 2000, 76, 347-363.	4.4	545

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73	Piezoelectric actuation mechanisms for intelligent sandwich structures. <i>Smart Materials and Structures</i> , 2000, 9, 328-335.	3.5	75
74	Modeling of Frequency-Dependent Viscoelastic Materials for Active-Passive Vibration Damping. <i>Journal of Vibration and Acoustics</i> , Transactions of the ASME, 2000, 122, 169-174.	1.6	115
75	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
76	New Thin Piezoelectric Plate Models. <i>Journal of Intelligent Material Systems and Structures</i> , 1998, 9, 1017-1029.	2.5	47
77	A Unified Beam Finite Element Model for Extension and Shear Piezoelectric Actuation Mechanisms. <i>Journal of Intelligent Material Systems and Structures</i> , 1997, 8, 1012-1025.	2.5	167
78	A B-spline finite element for the dynamic analysis of sandwich shells of revolution. <i>Engineering Computations</i> , 1996, 13, 240-262.	1.4	8
79	Un nouvel Élément fini du type B-spline pour l'analyse dynamique des coques de révolution. <i>Revue Europeenne Des Elements</i> , 1994, 3, 101-126.	0.1	1
80	Piezoelectricity Experimentation, Modeling and Simulation: Common Practices and Realistic Considerations. <i>Advances in Science and Technology</i> , 0, , .	0.2	0