Suresh Bhalla

List of Publications by Year
in descending order

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80	3,240	186265 28	155660 55
papers	citations	h-index	g-index

102	102	102	1282
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Controlling Dynamic Response of Structures Using Hybrid Passive Energy Dissipation Device. Journal of Earthquake Engineering, 2022, 26, 3209-3227.	2.5	5
2	Viability of electro-mechanical impedance technique for monitoring damage in rocks under cyclic loading. Acta Geotechnica, 2022, 17, 483-495.	5.7	7
3	Piezo-impedance based fatigue damage monitoring of restrengthened concrete frames. Composite Structures, 2022, 280, 114868.	5.8	13
4	Performance based design of a new hybrid passive energy dissipation device for vibration control of reinforced concrete frames subjected to broad-ranging earthquake ground excitations. Advances in Structural Engineering, 2022, 25, 895-912.	2.4	2
5	Vibration-based pre-emptive detection of plate buckling using piezo-transducers. Innovative Infrastructure Solutions, 2022, 7, 1.	2.2	0
6	Development and evaluation of reusable piezo sensors for health monitoring of thin-walled steel structures. Journal of Civil Structural Health Monitoring, 2022, 12, 647-657.	3.9	3
7	Piezoelectric sensor based 3D modal analysis under shaker derived random excitations. , 2022, , .		1
8	Non-bonded piezo sensor configuration for strain modal analysis based SHM. , 2022, , .		1
9	Fabrication and structural evaluation of fibre reinforced bamboo composite beams as green structural elements. Composites Part C: Open Access, 2021, 5, 100150.	3.2	5
10	3D torsional experimental strain modal analysis for structural health monitoring using piezoelectric sensors. Measurement: Journal of the International Measurement Confederation, 2021, 180, 109476.	5.0	26
11	Fatigue damage and residual fatigue life assessment in reinforced concrete frames using PZT-impedance transducers. Cement and Concrete Composites, 2020, 114, 103771.	10.7	21
12	Fatigue damage monitoring of reinforced concrete frames using wavelet transform energy of PZT-based admittance signals. Measurement: Journal of the International Measurement Confederation, 2020, 164, 108033.	5.0	25
13	Pipeline corrosion assessment using piezo-sensors in reusable non-bonded configuration. NDT and E International, 2020, 111, 102220.	3.7	21
14	Modified Dual Piezo Configuration for Improved Structural Health Monitoring Using Electro-Mechanical Impedance (EMI) Technique. Experimental Techniques, 2019, 43, 25-40.	1.5	12
15	Shape memory alloy actuation of non-bonded piezo sensor configuration for bone diagnosis and impedance based analysis. Biomedical Engineering Letters, 2019, 9, 435-447.	4.1	10
16	Health monitoring of reinforced concrete structures under impact using multiple piezo-based configurations. Construction and Building Materials, 2019, 222, 371-389.	7.2	28
17	Development and evaluation of an external reusable piezo-based concrete hydration-monitoring sensor. Journal of Intelligent Material Systems and Structures, 2019, 30, 2770-2788.	2.5	20
18	Expected residual service life of reinforced concrete structures from current strength considerations. Advances in Structural Engineering, 2019, 22, 1631-1643.	2.4	5

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19	Evaluation of power extraction circuits on piezoâ€transducers operating under lowâ€frequency vibrationâ€induced strains in bridges. Strain, 2019, 55, e12303.	2.4	7
20	Damage and retrofitting monitoring in reinforced concrete structures along with long-term strength and fatigue monitoring using embedded Lead Zirconate Titanate patches. Journal of Intelligent Material Systems and Structures, 2019, 30, 100-115.	2.5	27
21	Numerical evaluation of nonbonded piezo sensor for biomedical diagnostics using electromechanical impedance technique. International Journal for Numerical Methods in Biomedical Engineering, 2019, 35, e3160.	2.1	8
22	Numerical assessment of fatigue life of concrete frame using PZT sensors. , 2019, , .		2
23	Feasibility of piezoelectric energy harvesting from real-life city flyover: a case study. , 2019, , .		0
24	Industrial applications of electro-mechanical impedance technique in novel non-bonded configurations. , 2019, , .		1
25	Prognosis of low-strain fatigue induced damage in reinforced concrete structures using embedded piezo-transducers. International Journal of Fatigue, 2018, 113, 98-112.	5.7	37
26	Investigations on effectiveness of embedded PZT patches at varying orientations for monitoring concrete hydration using EMI technique. Construction and Building Materials, 2018, 169, 489-498.	7.2	58
27	Prognosis of fatigue and impact induced damage in concrete using embedded piezo-transducers. Sensors and Actuators A: Physical, 2018, 274, 116-131.	4.1	41
28	Monitoring early hydration of reinforced concrete structures using structural parameters identified by piezo sensors via electromechanical impedance technique. Mechanical Systems and Signal Processing, 2018, 99, 129-141.	8.0	90
29	Energy Harvesting using d₃₃ Mode by Insole Embedded Low Cost Piezo-Sensors. , 2018, , .		0
30	Green Energy Harvesting Using Piezoelectric Materials from Bridge Vibrations. , 2018, , .		12
31	Applications of structural health monitoring technology in Asia. Structural Health Monitoring, 2017, 16, 324-346.	7.5	90
32	Flexible response of bamboo-epoxy frames. Journal of Structural Integrity and Maintenance, 2017, 2, 70-77.	1.5	1
33	Assessment of human bones encompassing physiological decay and damage using piezo sensors in non-bonded configuration. Journal of Intelligent Material Systems and Structures, 2017, 28, 1977-1992.	2.5	19
34	Integration and evaluation of multiple piezo configurations for optimal health monitoring of reinforced concrete structures. Journal of Intelligent Material Systems and Structures, 2017, 28, 2717-2736.	2.5	17
35	A low-cost version of electro-mechanical impedance technique for damage detection in reinforced concrete structures using multiple piezo configurations. Advances in Structural Engineering, 2017, 20, 1247-1254.	2.4	17
36	Finite element modelling of non-bonded piezo sensors for biomedical health monitoring of bones based on EMI technique. , 2016, , .		0

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37	Experimental Evaluation of Miniature Impedance Chip for Structural Health Monitoring of Prototype Steel/RC Structures. Experimental Techniques, 2016, 40, 981-992.	1.5	31
38	Numerical investigations on energy harvesting potential of thin PZT patches adhesively bonded on RC structures. Sensors and Actuators A: Physical, 2016, 241, 44-59.	4.1	21
39	Metal-wire-based twin one-dimensional orthogonal array configuration of PZT patches for damage assessment of two-dimensional structures. Journal of Intelligent Material Systems and Structures, 2016, 27, 1440-1460.	2.5	20
40	Modelling of shear lag effect for piezo-elstodynamic structure for electro-mechanical imedance technique. Proceedings of SPIE, 2015, , .	0.8	1
41	Influence of adhesive bond layer on power and energy transduction efficiency of piezo-impedance transducer. Journal of Intelligent Material Systems and Structures, 2015, 26, 247-259.	2.5	25
42	Reinforcement corrosion assessment capability of surface bonded and embedded piezo sensors for reinforced concrete structures. Journal of Intelligent Material Systems and Structures, 2015, 26, 2304-2313.	2.5	71
43	New Paradigms in Piezoelectric Energy Harvesting from Civil-Structures. , 2015, , 2609-2613.		0
44	Combined Energy Harvesting and Structural Health Monitoring Potential of Embedded Piezo-Concrete Vibration Sensors. Journal of Energy Engineering - ASCE, 2015, 141, .	1.9	50
45	Experimental Strain Sensitivity Investigations on Embedded PZT Patches in Varying Orientations. , 2015, , 2615-2620.		3
46	Corrosion assessment of reinforced concrete structures based on equivalent structural parameters using electro-mechanical impedance technique. Journal of Intelligent Material Systems and Structures, 2014, 25, 484-500.	2.5	85
47	A continuum based modelling approach for adhesively bonded piezo-transducers for EMI technique. International Journal of Solids and Structures, 2014, 51, 1299-1310.	2.7	30
48	Feasibility of energy harvesting from thin piezo patches via axial strain (d 31) actuation mode. Journal of Civil Structural Health Monitoring, 2014, 4, 1-15.	3.9	14
49	Recent trends in reinforcement corrosion assessment using piezo sensors via electro mechanical impedance technique. Proceedings of SPIE, 2014, , .	0.8	0
50	Damage assessment of tensegrity structures using piezo transducers. Meccanica, 2013, 48, 1465-1478.	2.0	6
51	A refined shear lag model for adhesively bonded piezo-impedance transducers. Journal of Intelligent Material Systems and Structures, 2013, 24, 33-48.	2.5	51
52	Condition monitoring of bones using piezo-transducers. Meccanica, 2013, 48, 2233-2244.	2.0	28
53	Piezo-Impedance Transducers for Evaluation of Seismic Induced Structural Damage. Springer Environmental Science and Engineering, 2013, , 133-148.	0.1	1
54	Piezo-impedance transducers for residual fatigue life assessment of bolted steel joints. Structural Health Monitoring, 2012, 11, 733-750.	7.5	56

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55	Prediction of presence and severity of damages using experimental Mode Shape. Journal of Physics: Conference Series, 2012, 364, 012126.	0.4	1
56	Dual use of PZT patches as sensors in global dynamic and local electromechanical impedance techniques for structural health monitoring. Journal of Intelligent Material Systems and Structures, 2011, 22, 1841-1856.	2.5	66
57	A COST-EFFECTIVE APPROACH FOR TRAFFIC MONITORING USING PIEZO-TRANSDUCERS. Experimental Techniques, 2011, 35, 30-34.	1.5	6
58	DEFECT DETECTION IN CONCRETE STRUCTURES USING THERMAL IMAGING TECHNIQUES. Experimental Techniques, 2011, 35, 39-43.	1.5	15
59	A LOW-COST VARIANT OF ELECTRO-MECHANICAL IMPEDANCE (EMI) TECHNIQUE FOR STRUCTURAL HEALTH MONITORING. Experimental Techniques, 2010, 34, 25-29.	1.5	33
60	Integration of Electro-mechanical Impedance and Global Dynamic Techniques for Improved Structural Health Monitoring. Journal of Intelligent Material Systems and Structures, 2010, 21, 285-295.	2.5	21
61	Simplified Impedance Model for Adhesively Bonded Piezo-Impedance Transducers. Journal of Aerospace Engineering, 2009, 22, 373-382.	1.4	38
62	Multi-component force measurement using embedded fiber Bragg grating. Optics and Laser Technology, 2009, 41, 431-440.	4.6	15
63	Ultra Low-cost Adaptations of Electro-mechanical Impedance Technique for Structural Health Monitoring. Journal of Intelligent Material Systems and Structures, 2009, 20, 991-999.	2.5	79
64	Dismountable steel tensegrity grids as alternate roof structures. Steel and Composite Structures, 2009, 9, 239-253.	1.3	9
65	Bone Characterization using Piezotransducers as Biomedical Sensors. Strain, 2008, 44, 475-478.	2.4	32
66	Design of tensegrity structures using artificial neural networks. Structural Engineering and Mechanics, 2008, 29, 223-235.	1.0	2
67	Monitoring of rocks using smart sensors. Tunnelling and Underground Space Technology, 2007, 22, 206-221.	6.2	59
68	Optimized Parallel Interrogation and Protection of Piezo-transducers in Electromechanical Impedance Technique. Journal of Intelligent Material Systems and Structures, 2006, 17, 457-468.	2.5	19
69	Structural identification and damage diagnosis using self-sensing piezo-impedance transducers. Smart Materials and Structures, 2006, 15, 987-995.	3.5	115
70	Structural health monitoring of underground facilities â€“ Technological issues and challenges. Tunnelling and Underground Space Technology, 2005, 20, 487-500.	6.2	130
71	Wave propagation approach for NDE using surface bonded piezoceramics. NDT and E International, 2005, 38, 143-150.	3.7	38
72	Calibration of piezo-impedance transducers for strength prediction and damage assessment of concrete. Smart Materials and Structures, 2005, 14, 671-684.	3.5	155

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73	High frequency piezoelectric signatures for diagnosis of seismic/blast induced structural damages. NDT and E International, 2004, 37, 23-33.	3.7	111
74	Structural Health Monitoring by Piezo-Impedance Transducers. I: Modeling. Journal of Aerospace Engineering, 2004, 17, 154-165.	1.4	273
75	Structural Health Monitoring by Piezoâ€“Impedance Transducers. II: Applications. Journal of Aerospace Engineering, 2004, 17, 166-175.	1.4	130
76	Electromechanical Impedance Modeling for Adhesively Bonded Piezo-Transducers. Journal of Intelligent Material Systems and Structures, 2004, 15, 955-972.	2.5	196
77	Structural impedance based damage diagnosis by piezo-transducers. Earthquake Engineering and Structural Dynamics, 2003, 32, 1897-1916.	4.4	175
78	Damage detection in concrete structures with smart piezoceramic transducers. , 2003, 5062, 684.		15
79	Effects of adhesive on the electromechanical response of a piezoceramic-transducer-coupled smart system. , 2003, , .		22
80	Performance of smart piezoceramic patches in health monitoring of a RC bridge. Smart Materials and Structures, 2000, 9, 533-542.	3.5	339