Bassem Andrawes

List of Publications by Year
in descending order

55 papers	1,162 citations	430442 18 h-index	414034 32 g-index
57 all docs	57 docs citations	57 times ranked	679 citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental investigation of actively confined concrete using shape memory alloys. Engineering Structures, 2010, 32, 656-664.	2.6	131
2	Unseating prevention for multiple frame bridges using superelastic devices. Smart Materials and Structures, 2005, 14, S60-S67.	1.8	104
3	Comparison between Shape Memory Alloy Seismic Restrainers and Other Bridge Retrofit Devices. Journal of Bridge Engineering, 2007, 12, 700-709.	1.4	89
4	Lateral Cyclic Behavior of Reinforced Concrete Columns Retrofitted with Shape Memory Spirals and FRP Wraps. Journal of Structural Engineering, 2011, 137, 1282-1290.	1.7	66
5	Finite element analysis of carbon nanotube/cement composite with degraded bond strength. Computational Materials Science, 2010, 47, 994-1004.	1.4	58
6	Thermomechanical Characterization of NiTiNb Shape Memory Alloy for Concrete Active Confinement Applications. Journal of Materials in Civil Engineering, 2012, 24, 1274-1282.	1.3	46
7	Emergency repair of severely damaged reinforced concrete columns using active confinement with shape memory alloys. Smart Materials and Structures, 2011, 20, 065018.	1.8	42
8	Experimental flexural behavior of SMA-FRP reinforced concrete beam. Frontiers of Structural and Civil Engineering, 2013, 7, 341-355.	1.2	41
9	Incremental dynamic analysis of concrete moment resisting frames reinforced with shape memory composite bars. Smart Materials and Structures, 2012, 21, 025013.	1.8	38
10	Experimental study of non-circular concrete elements actively confined with shape memory alloy wires. Construction and Building Materials, 2014, 61, 303-311.	3.2	32
11	Bidirectional shake table testing of RC columns retrofitted and repaired with shape memory alloy spirals. Engineering Structures, 2018, 160, 171-185.	2.6	31
12	Analytical prediction of transfer length in prestressed self-consolidating concrete girders using pull-out test results. Construction and Building Materials, 2011, 25, 1026-1036.	3.2	30
13	Fabrication and Cyclic Behavior of Highly Ductile Superelastic Shape Memory Composites. Journal of Materials in Civil Engineering, 2014, 26, 622-632.	1.3	27
14	Sensitivity of Seismic Applications to Different Shape Memory Alloy Models. Journal of Engineering Mechanics - ASCE, 2008, 134, 173-183.	1.6	26
15	Cyclic Stress–Strain Behavior of Concrete Confined with NiTiNb-Shape Memory Alloy Spirals. Journal of Structural Engineering, 2017, 143, .	1.7	25
16	Seismic retrofitting of bridge columns using shape memory alloys. Proceedings of SPIE, 2008, , .	0.8	24
17	Repair of damaged end regions of PC beams using externally bonded FRP shear reinforcement. Construction and Building Materials, 2017, 148, 184-194.	3.2	21
18	Numerical and experimental study on dynamic behaviour of concrete sleeper track caused by wheel flat. International Journal of Rail Transportation, 2016, 4, 1-19.	1.8	20

#	Article	IF	Citations
19	Compression and tension stress-sensing of carbon nanotube-reinforced cement. Magazine of Concrete Research, 2012, 64, 253-258.	0.9	18
20	Finite element modeling and validation of the fastening systems and concrete sleepers used in North America. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2014, 228, 590-602.	1.3	17
21	Compression behavior of FRP strengthened bridge timber piles subjected to accelerated aging. Construction and Building Materials, 2016, 124, 177-185.	3.2	17
22	Experimental and analytical investigation of bridge timber piles under eccentric loads. Engineering Structures, 2010, 32, 2237-2246.	2.6	16
23	Parametric study on damage and load demand of prestressed concrete crosstie and fastening systems. Engineering Failure Analysis, 2014, 46, 49-61.	1.8	16
24	Thermomechanical testing of FeNiCoTi shape memory alloy for active confinement of concrete. Smart Materials and Structures, 2014, 23, 055015.	1.8	15
25	Characterization of the uncertainties in the constitutive behavior of carbon nanotube/cement composites. Science and Technology of Advanced Materials, 2009, 10, 045007.	2.8	14
26	Parametric Study of RC Bridge Columns Actively Confined with Shape Memory Alloy Spirals under Lateral Cyclic Loading. Journal of Bridge Engineering, 2014, 19, .	1.4	13
27	Innovative local prestressing system for concrete crossties using shape memory alloys. Engineering Structures, 2021, 247, 113048.	2.6	13
28	Seismic Damage Assessment of SMA-Retrofitted Multiple-Frame Bridge Subjected to Strong Main Shock–Aftershock Excitations. Journal of Bridge Engineering, 2018, 23, .	1.4	12
29	Finite element modelling and field validation of prestressed concrete sleepers and fastening systems. Structure and Infrastructure Engineering, 2016, 12, 631-646.	2.0	11
30	Mechanical Properties of NiTiNb Shape Memory Alloy Subjected to a Harsh Corrosive Environment. Journal of Materials in Civil Engineering, 2017, 29, 04016232.	1.3	11
31	Seismic performance of bridges with high strength concrete columns reinforced with SMA-FRP jackets. Smart Materials and Structures, 2019, 28, 035008.	1.8	11
32	Innovative prestressing technique using curved shape memory alloy reinforcement. Construction and Building Materials, 2020, 238, 117687.	3.2	11
33	Evaluation of surface roughness and bond-slip behavior of new textured epoxy-coated reinforcing bars. Construction and Building Materials, 2020, 262, 120762.	3.2	10
34	Local strengthening and repair of concrete bridge girders using shape memory alloy precast prestressing plate. Journal of Intelligent Material Systems and Structures, 2020, 31, 1343-1357.	1.4	9
35	Bridge Timber Piles Load Rating under Eccentric Loading Conditions. Journal of Bridge Engineering, 2012, 17, 700-710.	1.4	8
36	Modeling and Validation of RC Columns Seismically Retrofitted Using Shape Memory Spiral. , 2012, , .		8

#	Article	IF	Citations
37	Plasticity Modeling of Concrete Confined With NiTiNb Shape Memory Alloy Spirals. Structures, 2017, 11, 1-10.	1.7	8
38	Adaptive prestressing system using shape memory alloys and conventional steel for concrete crossties. Smart Materials and Structures, 2021, 30, 065016.	1.8	8
39	Sustainability of civil infrastructure using shape memory technology. Innovative Infrastructure Solutions, 2017, 2, 1.	1.1	7
40	Hybrid confinement of high strength concrete using shape memory alloys and fiber-reinforced polymers. Journal of Structural Integrity and Maintenance, 2018, 3, 22-32.	0.7	7
41	Flexure-Compression Testing of Bridge Timber Piles Retrofitted with Fiber Reinforced Polymers. Open Journal of Civil Engineering, 2012, 02, 115-124.	0.2	7
42	Exploratory Study on Bond Behavior of Textured Epoxy-Coated Reinforcing Bars. Journal of Materials in Civil Engineering, 2019, 31, 04019151.	1.3	6
43	A study on overturning failure of horizontally curved single steel box girders. Engineering Failure Analysis, 2019, 97, 20-31.	1.8	6
44	Seismic Retrofit of Bridge Columns Using Innovative Wrapping Technique. , 2008, , .		4
45	Finite Element Analysis of Actively Confined Concrete Using Shape Memory Alloys. Journal of Advanced Concrete Technology, 2014, 12, 520-534.	0.8	4
46	Load Rating of Deteriorated and FRP-Retrofitted Bridge Abutment Timber Piles. Journal of Bridge Engineering, 2017, 22, 04017058.	1.4	4
47	Probabilistic Seismic Demand Models for Shape Memory Alloy Retrofitted RC Bridge Columns. Journal of Bridge Engineering, 2018, 23, 04018050.	1.4	4
48	Retrofitting of bridge abutment timber piles using fiber-reinforced polymer composites. Journal of Structural Integrity and Maintenance, 2017, 2, 29-38.	0.7	3
49	Comparison of load rating of reinforced concrete slab bridge using analytical and field testing approaches. Innovative Infrastructure Solutions, 2022, 7, 1.	1.1	3
50	Behavior of FRP Retrofitted Bridge Timber Piles under Earthquake and Tsunami Loading. , 2017, , .		2
51	Application of new material testing integrated (MTI) simulation paradigm for studying concrete confinement. Bulletin of Earthquake Engineering, 2019, 17, 1053-1073.	2.3	2
52	Compressive behavior of cylindrical rubber buffer confined with fiber reinforced polymer. Journal of Low Frequency Noise Vibration and Active Control, 2020, 39, 470-484.	1.3	2
53	Multihazard Assessment and Retrofit of Deteriorated Timber Pile Bridges. Journal of Performance of Constructed Facilities, 2018, 32, 04018020.	1.0	1
54	Material Testing–Integrated Simulation of a Rehabilitated Concrete Structure Subjected to Preexisting Damage and Temperature Variation. Journal of Structural Engineering, 2021, 147, .	1.7	1

#	Article	IF	Citations
55	Using Machine Learning to Predict the Seismic Response of an SDOF RC Structure with Superelastic Dampers. International Journal of Civil Engineering, 0, , .	0.9	0