

Oral BÃ¼yÃ¼kÃ¶ztÃ¼rk

List of Publications by Year in descending order

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Version: 2024-02-01

102
papers

7,700
citations

81743

39
h-index

51492

86
g-index

102
all docs

102
docs citations

102
times ranked

5370
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomistic prediction on the degradation of vinyl ester-based composite under chloride and elevated temperature. <i>Composites Science and Technology</i> , 2022, 226, 109539.	3.8	17
2	Assessment of Plastic Energy Demand Spectra on Frame Systems. <i>Lecture Notes in Civil Engineering</i> , 2021, , 1-10.	0.3	0
3	Degradation of epoxy/glass interface in hygrothermal environment: An atomistic investigation. <i>Composites Part B: Engineering</i> , 2021, 206, 108534.	5.9	50
4	Damping effect on seismic input energy and its verification by shake table tests. <i>Advances in Structural Engineering</i> , 2021, 24, 2669-2683.	1.2	4
5	Multi-component deconvolution interferometry for data-driven prediction of seismic structural response. <i>Engineering Structures</i> , 2021, 241, 112405.	2.6	7
6	A power optimised and reprogrammable system for smart wireless vibration monitoring. <i>Structural Control and Health Monitoring</i> , 2020, 27, e2468.	1.9	6
7	Collaborative duty cycling strategies in energy harvesting sensor networks. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2020, 35, 534-548.	6.3	10
8	In situ investigation of phosphonate retarder interaction in oil well cements at elevated temperature and pressure conditions. <i>Journal of the American Ceramic Society</i> , 2020, 103, 6400-6413.	1.9	6
9	Hybrid output-only structural system identification using random decrement and Kalman filter. <i>Mechanical Systems and Signal Processing</i> , 2020, 144, 106977.	4.4	22
10	Roadmap for a Sustainable Built Environment: A Science-Based Multidisciplinary Research. , 2020, , 3-14.		0
11	In situ examination of engineered local additives in cement paste via neutron based scattering techniques. <i>Construction and Building Materials</i> , 2020, 243, 118175.	3.2	2
12	Multiscale Modeling of Cohesive-Frictional Strength Properties in Cementitious Materials. , 2020, , 1687-1710.		0
13	Retarder effect on hydrating oil well cements investigated using in situ neutron/X-ray pair distribution function analysis. <i>Cement and Concrete Research</i> , 2019, 126, 105920.	4.6	18
14	Structural damage detection using Bayesian inference and seismic interferometry. <i>Structural Control and Health Monitoring</i> , 2019, 26, e2445.	1.9	10
15	Deep long short-term memory networks for nonlinear structural seismic response prediction. <i>Computers and Structures</i> , 2019, 220, 55-68.	2.4	220
16	GPS Measured Response of a Tall Building due to a Distant Mw 7.3 Earthquake. <i>Seismological Research Letters</i> , 2019, 90, 149-159.	0.8	6
17	An improved input energy spectrum verified by the shake table tests. <i>Earthquake Engineering and Structural Dynamics</i> , 2019, 48, 27-45.	2.5	30
18	New insights into water dynamics of Portland cement paste with nano-additives using quasielastic neutron scattering. <i>Journal of Materials Science</i> , 2019, 54, 4710-4718.	1.7	3

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19	Computational modeling of a unique tower in Kuwait for structural health monitoring: Numerical investigations. <i>Structural Control and Health Monitoring</i> , 2019, 26, e2317.	1.9	13
20	Impact of Embodied Energy on materials/buildings with partial replacement of ordinary Portland Cement (OPC) by natural Pozzolan volcanic Ash. <i>Journal of Cleaner Production</i> , 2018, 177, 547-554.	4.6	81
21	Conditional classifiers and boosted conditional Gaussian mixture model for novelty detection. <i>Pattern Recognition</i> , 2018, 81, 601-614.	5.1	17
22	Hydration kinetics and morphology of cement pastes with pozzolan volcanic ash studied via synchrotron-based techniques. <i>Journal of Materials Science</i> , 2018, 53, 1743-1757.	1.7	26
23	Use of silica fume and natural volcanic ash as a replacement to Portland cement: Micro and pore structural investigation using NMR, XRD, FTIR and X-ray microtomography. <i>Construction and Building Materials</i> , 2018, 158, 574-590.	3.2	134
24	Irradiated recycled plastic as a concrete additive for improved chemo-mechanical properties and lower carbon footprint. <i>Waste Management</i> , 2018, 71, 426-439.	3.7	61
25	Autonomous Structural Visual Inspection Using Region-Based Deep Learning for Detecting Multiple Damage Types. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2018, 33, 731-747.	6.3	943
26	The MIT Green Building benchmark problem for structural health monitoring of tall buildings. <i>Structural Control and Health Monitoring</i> , 2018, 25, e2115.	1.9	18
27	Multiscale Modeling of Cohesive-Frictional Strength Properties in Cementitious Materials. , 2018, , 1-24.		0
28	Camera-Based Vibration Measurement of the World War I Memorial Bridge in Portsmouth, New Hampshire. <i>Journal of Structural Engineering</i> , 2018, 144, .	1.7	59
29	Analysis of engineered cement paste using silica nanoparticles and metakaolin using ²⁹ Si NMR, water adsorption and synchrotron X-ray Diffraction. <i>Construction and Building Materials</i> , 2018, 180, 698-709.	3.2	38
30	Ground Motion in Kuwait from Regional and Local Earthquakes: Potential Effects on Tall Buildings. <i>Pure and Applied Geophysics</i> , 2018, 175, 4183-4195.	0.8	10
31	Random field finite element models with cohesive-frictional interactions of a hardened cement paste microstructure. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 119, 349-368.	2.3	10
32	Particle Size Effect of Volcanic Ash towards Developing Engineered Portland Cements. <i>Journal of Materials in Civil Engineering</i> , 2018, 30, .	1.3	25
33	Pairwise graphical models for structural health monitoring with dense sensor arrays. <i>Mechanical Systems and Signal Processing</i> , 2017, 93, 578-592.	4.4	7
34	Constitutive response of calcium-silicate-hydrate layers under combined loading. <i>Journal of the American Ceramic Society</i> , 2017, 100, 713-723.	1.9	15
35	In situ Raman studies on cement paste prepared with natural pozzolan volcanic ash and Ordinary Portland Cement. <i>Construction and Building Materials</i> , 2017, 148, 444-454.	3.2	32
36	A Bayesian state-space approach for damage detection and classification. <i>Mechanical Systems and Signal Processing</i> , 2017, 96, 239-259.	4.4	17

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37	Deep Learning-Based Crack Damage Detection Using Convolutional Neural Networks. Computer-Aided Civil and Infrastructure Engineering, 2017, 32, 361-378.	6.3	2,022
38	Debonding of concrete-epoxy interface under the coupled effect of moisture and sustained load. Cement and Concrete Composites, 2017, 80, 287-297.	4.6	74
39	Video Camera-Based Vibration Measurement for Civil Infrastructure Applications. Journal of Infrastructure Systems, 2017, 23, .	1.0	130
40	Motion microscopy for visualizing and quantifying small motions. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11639-11644.	3.3	55
41	A cohesive-frictional force field (CFFF) for colloidal calcium-silicate-hydrates. Journal of the Mechanics and Physics of Solids, 2017, 109, 160-177.	2.3	11
42	A symmetry measure for damage detection with mode shapes. Journal of Sound and Vibration, 2017, 408, 123-137.	2.1	16
43	Decentralised one-class kernel classification-based damage detection and localisation. Structural Control and Health Monitoring, 2017, 24, e1930.	1.9	12
44	Bayesian characterization of buildings using seismic interferometry on ambient vibrations. Mechanical Systems and Signal Processing, 2017, 85, 468-486.	4.4	54
45	Impact load identification for composite structures using Bayesian regularization and unscented Kalman filter. Structural Control and Health Monitoring, 2017, 24, e1910.	1.9	55
46	Continuous Monitoring of High-Rise Buildings Using Seismic Interferometry. Bulletin of the Seismological Society of America, 2017, 107, 2759-2773.	1.1	29
47	Field Measurement-Based System Identification and Dynamic Response Prediction of a Unique MIT Building. Sensors, 2016, 16, 1016.	2.1	10
48	Damage detection with small data set using energy-based nonlinear features. Structural Control and Health Monitoring, 2016, 23, 333-348.	1.9	20
49	Eulerian video magnification and analysis. Communications of the ACM, 2016, 60, 87-95.	3.3	79
50	Roadmap across the mesoscale for durable and sustainable cement paste - A bioinspired approach. Construction and Building Materials, 2016, 115, 13-31.	3.2	39
51	Water dynamics in cement paste at early age prepared with pozzolanic volcanic ash and Ordinary Portland Cement using quasilastic neutron scattering. Cement and Concrete Research, 2016, 86, 55-62.	4.6	29
52	Microstructure of cement paste with natural pozzolanic volcanic ash and Portland cement at different stages of curing. Construction and Building Materials, 2016, 113, 423-441.	3.2	73
53	Probabilistic updating of building models using incomplete modal data. Mechanical Systems and Signal Processing, 2016, 75, 27-40.	4.4	61
54	Mechanical behavior of a composite interface: Calcium-silicate-hydrates. Journal of Applied Physics, 2015, 118, .	1.1	18

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55	Modal identification of simple structures with high-speed video using motion magnification. Journal of Sound and Vibration, 2015, 345, 58-71.	2.1	381
56	Mesoscale modeling of cement matrix using the concept of building block. Materials Research Society Symposia Proceedings, 2015, 1759, 13.	0.1	5
57	Optimal sensor placement in structural health monitoring using discrete optimization. Smart Materials and Structures, 2015, 24, 125034.	1.8	100
58	Structural Damage Detection Using Modal Strain Energy and Hybrid Multiobjective Optimization. Computer-Aided Civil and Infrastructure Engineering, 2015, 30, 347-358.	6.3	161
59	Operational and defect parameters concerning the acoustic-laser vibrometry method for FRP-reinforced concrete. NDT and E International, 2015, 71, 43-53.	1.7	26
60	Development of Earthquake Energy Demand Spectra. Earthquake Spectra, 2015, 31, 1667-1689.	1.6	58
61	A robust nanoscale experimental quantification of fracture energy in a bilayer material system. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11990-11995.	3.3	48
62	Rocking Behavior of an Instrumented Unique Building on the MIT Campus Identified from Ambient Shaking Data. Earthquake Spectra, 2014, 30, 705-720.	1.6	23
63	Automated Structural Damage Detection Using One-Class Machine Learning. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 117-128.	0.3	18
64	Assessment and Localization of Active Discontinuities Using Energy Distribution Between Intrinsic Modes. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 1-9.	0.3	4
65	Modal Strain Energy Based Damage Detection Using Multi-Objective Optimization. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 125-133.	0.3	8
66	Ductility of FRPâ€“concrete systems: Investigations at different length scales. Construction and Building Materials, 2013, 49, 915-925.	3.2	49
67	Structural Damage Detection Based on Energy Transfer Between Intrinsic Modes. , 2013, , .		2
68	Multiscale modeling of organic-inorganic interface: From molecular dynamics simulation to finite element modeling. Materials Research Society Symposia Proceedings, 2012, 1466, 38.	0.1	3
69	Characterization of the intrinsic strength between epoxy and silica using a multiscale approach. Journal of Materials Research, 2012, 27, 1787-1796.	1.2	62
70	Structural solution using molecular dynamics: Fundamentals and a case study of epoxy-silica interface. International Journal of Solids and Structures, 2011, 48, 2131-2140.	1.3	137
71	Fracture characterization of concrete/epoxy interface affected by moisture. Mechanics of Materials, 2010, 42, 1031-1042.	1.7	128
72	A fracture-based model for FRP debonding in strengthened beams. Engineering Fracture Mechanics, 2009, 76, 1897-1909.	2.0	55

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73	Far-field radar NDT technique for detecting GFRP debonding from concrete. Construction and Building Materials, 2009, 23, 1678-1689.	3.2	35
74	A Novel Structural Assessment Technique to Prevent Damaged FRP-Wrapped Concrete Bridge Piers from Collapse. Geotechnical, Geological and Earthquake Engineering, 2009, , 127-141.	0.1	0
75	A far-field airborne radar NDT technique for detecting debonding in GFRPâ€“retrofitted concrete structures. NDT and E International, 2008, 41, 10-24.	1.7	42
76	Debonding of FRP plated concrete: A tri-layer fracture treatment. Engineering Fracture Mechanics, 2006, 73, 348-365.	2.0	54
77	A methodology for determining complex permittivity of construction materials based on transmission-only coherent, wide-bandwidth free-space measurements. Cement and Concrete Composites, 2006, 28, 349-359.	4.6	82
78	Peel and Shear Fracture Characterization of Debonding in FRP Plated Concrete Affected by Moisture. Journal of Composites for Construction, 2006, 10, 35-47.	1.7	119
79	Effect of Fiber Orientation and Ply Mix on Fiber Reinforced Polymer-Confined Concrete. Journal of Composites for Construction, 2005, 9, 397-407.	1.7	50
80	Progress on understanding debonding problems in reinforced concrete and steel members strengthened using FRP composites. Construction and Building Materials, 2004, 18, 9-19.	3.2	320
81	Imaging of concrete specimens using inverse synthetic aperture radar. AIP Conference Proceedings, 2000, , .	0.3	0
82	Wideband Microwave Imaging of Concrete for Nondestructive Testing. Journal of Structural Engineering, 2000, 126, 1451-1457.	1.7	27
83	Crack propagation in concrete composites influenced by interface fracture parameters. International Journal of Solids and Structures, 1998, 35, 4055-4066.	1.3	82
84	Imaging of concrete structures. NDT and E International, 1998, 31, 233-243.	1.7	128
85	Failure Behavior of Precracked Concrete Beams Retrofitted with FRP. Journal of Composites for Construction, 1998, 2, 138-144.	1.7	233
86	Electromagnetic Properties of Concrete and Their Significance in Nondestructive Testing. Transportation Research Record, 1997, 1574, 10-17.	1.0	25
87	Radar imaging of concrete specimens for non-destructive testing. Construction and Building Materials, 1997, 11, 195-198.	3.2	14
88	Modeling of electromagnetic wave scattering by concrete specimens. Cement and Concrete Research, 1995, 25, 1011-1022.	4.6	12
89	Assessment of interfacial fracture toughness in concrete composites. Cement and Concrete Composites, 1993, 15, 143-151.	4.6	16
90	Fracture Analysis of Mortarâ€“Aggregate Interfaces in Concrete. Journal of Engineering Mechanics - ASCE, 1992, 118, 2031-2046.	1.6	36

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91	Shear Behavior of Joints in Precast Concrete Segmental Bridges. Journal of Structural Engineering, 1990, 116, 3380-3401.	1.7	132
92	Expert Interactive Design of R/C Columns Under Biaxial Bending. Journal of Computing in Civil Engineering, 1987, 1, 69-81.	2.5	13
93	Constitutive modeling of concrete in finite element analysis. Computers and Structures, 1985, 21, 581-610.	2.4	29
94	Constitutive Model for Concrete in Cyclic Compression. Journal of Engineering Mechanics - ASCE, 1985, 111, 797-814.	1.6	43
95	Concrete in Biaxial Cyclic Compression. Journal of Structural Engineering, 1984, 110, 461-476.	1.7	59
96	Hybrid Model for Discrete Cracks in Concrete. Journal of Engineering Mechanics - ASCE, 1984, 110, 1211-1229.	1.6	13
97	Thermomechanical Behavior of Refractory Concrete Linings. Journal of the American Ceramic Society, 1982, 65, 301-307.	1.9	11
98	Research on modeling shear transfer in reinforced concrete nuclear structures. Nuclear Engineering and Design, 1980, 59, 67-83.	0.8	11
99	Shear Stiffness of Concrete by Finite Elements. Journal of the Structural Division, 1980, 106, 1311-1327.	0.2	16
100	Shear Transfer Model for Reinforced Concrete. Journal of the Engineering Mechanics Division, 1979, 105, 255-275.	0.4	25
101	Nonlinear analysis of reinforced concrete structures. Computers and Structures, 1977, 7, 149-156.	2.4	87
102	Deformation and Fracture of Particulate Composite. Journal of the Engineering Mechanics Division, 1972, 98, 581-593.	0.4	14