Khalid M Mosalam

List of Publications by Year
in descending order

143 papers	5,038 citations	101384 36 h-index	98622 67 g-index
146 all docs	146 docs citations	146 times ranked	3209 citing authors

#	Article	IF	Citations
1	Probabilistic Capacity Models and Fragility Estimates for Reinforced Concrete Columns based on Experimental Observations. Journal of Engineering Mechanics - ASCE, 2002, 128, 1024-1038.	1.6	523
2	Deep Transfer Learning for Image‐Based Structural Damage Recognition. Computer-Aided Civil and Infrastructure Engineering, 2018, 33, 748-768.	6.3	484
3	Performance of reinforced concrete buildings during the August 17, 1999 Kocaeli, Turkey earthquake, and seismic design and construction practise in Turkey. Engineering Structures, 2003, 25, 103-114.	2.6	303
4	PROBABILISTIC SEISMIC DEMAND MODELS AND FRAGILITY ESTIMATES FOR RC BRIDGES. Journal of Earthquake Engineering, 2003, 7, 79-106.	1.4	205
5	PEER Performance-Based Earthquake Engineering Methodology, Revisited. Journal of Earthquake Engineering, 2013, 17, 829-858.	1.4	191
6	Comparison of the structural behavior of reinforced concrete and steel fiber reinforced concrete tunnel segmental joints. Tunnelling and Underground Space Technology, 2017, 68, 38-57.	3.0	150
7	Shake-table experiment on reinforced concrete structure containing masonry infill wall. Earthquake Engineering and Structural Dynamics, 2006, 35, 1827-1852.	2.5	133
8	Seismic demand sensitivity of reinforced concrete shear-wall building using FOSM method. Earthquake Engineering and Structural Dynamics, 2005, 34, 1719-1736.	2.5	128
9	Strengthening of two-way concrete slabs with FRP composite laminates. Construction and Building Materials, 2003, 17, 43-54.	3.2	112
10	Development and application of the integrated sealant test apparatus for sealing gaskets in tunnel segmental joints. Tunnelling and Underground Space Technology, 2017, 63, 54-68.	3.0	104
11	Deep leaf‐bootstrapping generative adversarial network for structural image data augmentation. Computer-Aided Civil and Infrastructure Engineering, 2019, 34, 755-773.	6.3	93
12	Progressive Collapse Analysis of Reinforced Concrete Frames with Unreinforced Masonry Infill Walls considering In-Plane/Out-of-Plane Interaction. Earthquake Spectra, 2015, 31, 921-943.	1.6	83
13	Failure mechanism of joint waterproofing in precast segmental tunnel linings. Tunnelling and Underground Space Technology, 2019, 84, 334-352.	3.0	82
14	Nonlinear transient analysis of reinforced concrete slabs subjected to blast loading and retrofitted with CFRP composites. Composites Part B: Engineering, 2001, 32, 623-636.	5.9	81
15	Static Response of Infilled Frames Using Quasi-Static Experimentation. Journal of Structural Engineering, 1997, 123, 1462-4169.	1.7	80
16	Experimental Investigation of Nonductile RC Corner Beam-Column Joints with Floor Slabs. Journal of Structural Engineering, 2013, 139, 1-14.	1.7	70
17	Title is missing!. Journal of Earthquake Engineering, 2003, 7, 79.	1.4	60
18	Sealant behavior of gasketed segmental joints in shield tunnels: An experimental and numerical study. Tunnelling and Underground Space Technology, 2018, 77, 127-141.	3.0	60

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19	Probabilistic fiber element modeling of reinforced concrete structures. Computers and Structures, 2004, 82, 2285-2299.	2.4	59
20	Parameters for shear strength prediction of exterior beam–column joints without transverse reinforcement. Engineering Structures, 2012, 36, 198-209.	2.6	59
21	Modeling progressive collapse in reinforced concrete buildings using direct element removal. Earthquake Engineering and Structural Dynamics, 2009, 38, 609-634.	2.5	58
22	Seismic performance evaluation of high voltage disconnect switches using real–time hybrid simulation: I. System development and validation. Earthquake Engineering and Structural Dynamics, 2014, 43, 1205-1222.	2.5	55
23	Balanced semisupervised generative adversarial network for damage assessment from low–data imbalanced–class regime. Computer-Aided Civil and Infrastructure Engineering, 2021, 36, 1094-1113.	6.3	55
24	Development of peer-to-peer (P2P) internet online hybrid test system. Earthquake Engineering and Structural Dynamics, 2006, 35, 867-890.	2.5	54
25	Experimental investigation and numerical analysis of RC beams shear strengthened with FRP/ECC composite layer. Composite Structures, 2020, 246, 112436.	3.1	53
26	Analysis of reinforced concrete columns retrofitted with fiber reinforced polymer lamina. Composites Part B: Engineering, 2007, 38, 265-276.	5.9	52
27	SEISMIC FRAGILITY OF LRC FRAMES WITH AND WITHOUT MASONRY INFILL WALLS. Journal of Earthquake Engineering, 1997, 1, 693-720.	1.4	50
28	Comparison of European and Japanese seismic design of steel building structures. Engineering Structures, 2005, 27, 827-840.	2.6	45
29	Applications of laser scanning to structures in laboratory tests and field surveys. Structural Control and Health Monitoring, 2014, 21, 115-134.	1.9	45
30	PEER Hub ImageNet: A Large-Scale Multiattribute Benchmark Data Set of Structural Images. Journal of Structural Engineering, 2020, 146, .	1.7	45
31	Performance-based engineering and multi-criteria decision analysis for sustainable and resilient building design. Structural Safety, 2018, 74, 1-13.	2.8	43
32	Mechanical behavior of ultra-high toughness cementitious composite strengthened with Fiber Reinforced Polymer grid. Composite Structures, 2018, 184, 1-10.	3.1	43
33	Multistage semisupervised active learning framework for crack identification, segmentation, and measurement of bridges. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 1089-1108.	6.3	41
34	Towards error-free hybrid simulation using mixed variables. Earthquake Engineering and Structural Dynamics, 2007, 36, 1497-1522.	2.5	40
35	Deep semantic segmentation for visual understanding on construction sites. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 145-162.	6.3	40
36	Response of infilled frames using pseudo-dynamic experimentation. Earthquake Engineering and Structural Dynamics, 1998, 27, 589-608.	2.5	39

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37	Shake table testing of a rocking podium: Results of a blind prediction contest. Earthquake Engineering and Structural Dynamics, 2021, 50, 1043-1062.	2.5	38
38	Finite-Element Analysis of a Composite Frame under Large Lateral Cyclic Loading. Journal of Structural Engineering, 2007, 133, 1018-1026.	1.7	37
39	Response evaluation of interconnected electrical substation equipment using real‐time hybrid simulation on multiple shaking tables. Earthquake Engineering and Structural Dynamics, 2016, 45, 2389-2404.	2.5	36
40	Modal identification of bridge systems using state-space methods. Structural Control and Health Monitoring, 2005, 12, 381-404.	1.9	34
41	Simulation of Reinforced Concrete Frames with Nonductile Beam-Column Joints. Earthquake Spectra, 2013, 29, 233-257.	1.6	34
42	Cumulative Absolute Velocity as a Local Damage Indicator of Instrumented Structures. Earthquake Spectra, 2017, 33, 641-664.	1.6	31
43	Evaluating energy consumption saving from translucent concrete building envelope. Energy and Buildings, 2017, 153, 448-460.	3.1	31
44	Kernel density maximum entropy method with generalized moments for evaluating probability distributions, including tails, from a small sample of data. International Journal for Numerical Methods in Engineering, 2018, 113, 1904-1928.	1.5	31
45	Seismic demand and experimental evaluation of the nonstructural building curtain wall: A review. Soil Dynamics and Earthquake Engineering, 2017, 100, 16-33.	1.9	30
46	System identification of instrumented bridge systems. Earthquake Engineering and Structural Dynamics, 2003, 32, 999-1020.	2.5	29
47	Enhancement of real‐time hybrid simulation on a shaking table configuration with implementation of an advanced control method. Earthquake Engineering and Structural Dynamics, 2015, 44, 657-675.	2.5	29
48	Structural Performance of Porcelain and Polymer Post Insulators in High Voltage Electrical Switches. Journal of Performance of Constructed Facilities, 2016, 30, .	1.0	29
49	Adaptive tuned mass damper with shape memory alloy for seismic application. Engineering Structures, 2020, 223, 111171.	2.6	28
50	Seismic performance evaluation of high-voltage disconnect switches using real-time hybrid simulation: II. Parametric study. Earthquake Engineering and Structural Dynamics, 2014, 43, 1223-1237.	2.5	27
51	Performance-based design of joint waterproofing of segmental tunnel linings using hybrid computational/experimental procedures. Tunnelling and Underground Space Technology, 2020, 96, 103172.	3.0	27
52	Computational Modeling of Translucent Concrete Panels. Journal of Architectural Engineering, 2015, 21, .	0.8	25
53	Seismic evaluation of the shear behavior in reinforced concrete bridge columns including effect of vertical accelerations. Earthquake Engineering and Structural Dynamics, 2014, 43, 317-337.	2.5	24
54	Experimental evaluation of a glass curtain wall of a tall building. Earthquake Engineering and Structural Dynamics, 2016, 45, 1185-1205.	2.5	24

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55	Feasibility of shape memory alloy in a tuneable mass damper to reduce excessive in-service vibration. Structural Control and Health Monitoring, 2017, 24, e1858.	1.9	24
56	CausalBG: Causal Recurrent Neural Network for the Blood Glucose Inference With IoT Platform. IEEE Internet of Things Journal, 2020, 7, 598-610.	5.5	22
57	Seismic Performance of Reinforced-Concrete Stairways during the 2008 Wenchuan Earthquake. Journal of Performance of Constructed Facilities, 2013, 27, 721-730.	1.0	21
58	An improved direct stiffness calculation method for damage detection of beam structures. Structural Control and Health Monitoring, 2013, 20, 835-851.	1.9	19
59	Evolutionary characteristic length method for smeared cracking finite element models. Finite Elements in Analysis and Design, 1997, 27, 99-108.	1.7	18
60	Ubiquitous luminance sensing using the Raspberry Pi and Camera Module system. Lighting Research and Technology, 2017, 49, 904-921.	1.2	18
61	Auto-Regressive Integrated Moving-Average Machine Learning for Damage Identification of Steel Frames. Applied Sciences (Switzerland), 2021, 11, 6084.	1.3	17
62	Seismic performance and restraint system of suspended 800â€¯kV thyristor valve. Engineering Structures, 2018, 169, 179-187.	2.6	16
63	Improved shear strength model for exterior reinforced concrete beam-column joints using gene expression programming. Engineering Structures, 2021, 228, 111563.	2.6	16
64	Investigation of short column effect of RC buildings: failure and prevention. Computers and Concrete, 2010, 7, 523-532.	0.7	16
65	Sunlight Permeability of Translucent Concrete Panels as a Building Envelope. Journal of Architectural Engineering, 2018, 24, .	0.8	15
66	Shaking table testing of granite cladding with undercut bolt anchorage. Engineering Structures, 2018, 171, 488-499.	2.6	15
67	A computationally rigorous approach to hybrid fire testing. Computers and Structures, 2020, 238, 106301.	2.4	15
68	Statistical significance of modal parameters of bridge systems identified from strong motion data. Earthquake Engineering and Structural Dynamics, 2005, 34, 1323-1341.	2.5	14
69	Towards Modeling Progressive Collapse in Reinforced Concrete Buildings. , 2007, , 1.		14
70	Equivalent Linearization Methods for Stochastic Dynamic Analysis Using Linear Response Surfaces. Journal of Engineering Mechanics - ASCE, 2017, 143, .	1.6	14
71	Structural Health Monitoring Using Machine Learning and Cumulative Absolute Velocity Features. Applied Sciences (Switzerland), 2021, 11, 5727.	1.3	14
72	Seismic Evaluation and Retrofit of Asymmetric Multi-Story Wood-Frame Building. Journal of Earthquake Engineering, 2007, 11, 968-986.	1.4	13

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73	A computational model for reinforced concrete members confined with fiber reinforced polymer lamina: Implementation and experimental validation. Composites Part B: Engineering, 2007, 38, 598-613.	5.9	13
74	Seismic response of bent caps in as-built and retrofitted reinforced concrete box-girder bridges. Engineering Structures, 2015, 98, 59-73.	2.6	13
75	The 3rd Global Summit of Research Institutes for Disaster Risk Reduction: Expanding the Platform for Bridging Science and Policy Making. International Journal of Disaster Risk Science, 2017, 8, 224-230.	1.3	12
76	Modeling of layered timber beams and ribbed shell frameworks. Composites Part B: Engineering, 2002, 33, 367-381.	5.9	11
77	Direct Integration Algorithms for Efficient Nonlinear Seismic Response of Reinforced Concrete Highway Bridges. Journal of Bridge Engineering, 2016, 21, .	1.4	11
78	Damage Detection Using Improved Direct Stiffness Calculations â€" A Case Study. International Journal of Structural Stability and Dynamics, 2016, 16, 1640002.	1.5	11
79	Response of Mid-Rise Reinforced Concrete Frame Buildings to the 2017 Puebla Earthquake. Earthquake Spectra, 2019, 35, 1763-1793.	1.6	11
80	Substructured Dynamic Testing of Substation Disconnect Switches. Earthquake Spectra, 2016, 32, 567-589.	1.6	10
81	Ground motion selection and modification evaluation for highway bridges subjected to Bi-directional horizontal excitation. Soil Dynamics and Earthquake Engineering, 2020, 130, 105994.	1.9	10
82	Structural Behavior of Steel-Plate Girders in Shear: Experimental Study and Review of Current Design Principles. Journal of Structural Engineering, 2020, 146, .	1.7	10
83	Human-machine collaboration framework for structural health monitoring and resiliency. Engineering Structures, 2021, 235, 112084.	2.6	10
84	Seismic Evaluation of Gravity-Load-Designed Column-Grid System. Journal of Structural Engineering, 2002, 128, 160-168.	1.7	9
85	Infill Walls as a Spine to Enhance the Seismic Performance of Non-Ductile Reinforced Concrete Frames. , 2009, , .		9
86	Lyapunov Stability and Accuracy of Direct Integration Algorithms Applied to Nonlinear Dynamic Problems. Journal of Engineering Mechanics - ASCE, 2016, 142, .	1.6	9
87	1996 EERI Student Paper Award Modeling of the Nonlinear Seismic Behavior of Gravity Load Designed Frames. Earthquake Spectra, 1996, 12, 479-492.	1.6	8
88	Hybrid Simulations: Theory, Applications, and Future Directions. Advanced Materials Research, 0, 639-640, 67-95.	0.3	8
89	Shaking Table Evaluation of Reinforced Concrete Bridge Columns Repaired Using Fiber-Reinforced Polymer Jackets. Journal of Bridge Engineering, 2015, 20, 04015025.	1.4	8
90	Rocking Spine for Enhanced Seismic Performance of Reinforced Concrete Frames with Infills. Journal of Structural Engineering, 2016, 142, .	1.7	8

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91	Shaking table test method of building curtain walls using floor capacity demand diagrams. Bulletin of Earthquake Engineering, 2017, 15, 3185-3205.	2.3	8
92	Shaking Table Tests of the Cable Tray System in Nuclear Power Plants. Journal of Performance of Constructed Facilities, 2017, 31, .	1.0	8
93	A Decision Support Tool for Sustainable and Resilient Building Design. Springer Series in Reliability Engineering, 2017, , 509-536.	0.3	8
94	Experimental and Computational Evaluation of In-Span Hinges in Reinforced Concrete Box-Girder Bridges. Journal of Structural Engineering, 2011, 137, 1245-1253.	1.7	7
95	Teaching Innovation through Hands-on-Experience Case Studies Combined with Hybrid Simulation. Journal of Professional Issues in Engineering Education and Practice, 2013, 139, 177-186.	0.9	7
96	Real-time hybrid simulation in a shaking table configuration for parametric studies of high-voltage equipment and IEEE693 development. Nuclear Engineering and Design, 2015, 295, 901-909.	0.8	7
97	Hybrid Simulation Theory for Continuous Beams. Journal of Engineering Mechanics - ASCE, 2015, 141, 04015005.	1.6	7
98	Acceleration demand of the outer-skin curtain wall system of the Shanghai Tower. Structural Design of Tall and Special Buildings, 2017, 26, e1341.	0.9	7
99	Strengthening of concrete beams by monolayer prepreg composites with and without graphene reinforcement. Construction and Building Materials, 2017, 151, 866-880.	3.2	7
100	Similitude theory for scaled friction pendulum bearings for shaking table experiments. Soil Dynamics and Earthquake Engineering, 2019, 121, 399-404.	1.9	7
101	Probabilistic performance-based seismic assessment of an existing masonry building. Earthquake Spectra, 2020, 36, 271-298.	1.6	7
102	NEW DIRECTIONS IN STRUCTURAL HEALTH MONITORING. NED University Journal of Research, 2019, 2, 77-112.	0.4	7
103	Bidirectional Cyclic Performance of Reinforced Concrete Bridge Column-Superstructure Subassemblies. Earthquake Spectra, 2002, 18, 663-687.	1.6	6
104	Lyapunov Stability Analysis of Explicit Direct Integration Algorithms Considering Strictly Positive Real Lemma. Journal of Engineering Mechanics - ASCE, 2016, 142, 04016079.	1.6	6
105	Multiscale Homogenization Analysis of the Effective Elastic Properties of Masonry Structures. Journal of Materials in Civil Engineering, 2016, 28, 04016056.	1.3	6
106	Prediction of blast pressure-duration capacity of monolithic Thermally Tempered Glass panes. International Journal of Impact Engineering, 2020, 136, 103433.	2.4	6
107	LASER SCANNING, MODELING, AND ANALYSIS FOR DAMAGE ASSESSMENT AND RESTORATION OF HISTORICAL STRUCTURES. , 2015, , .		6
108	Parametric Study and Design Recommendations for In-Span Hinges in Reinforced Concrete Box-Girder Bridges. Journal of Bridge Engineering, 2012, 17, 334-342.	1.4	4

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109	Lyapunov Stability Analysis of Explicit Direct Integration Algorithms Applied to Multi-Degree-of-Freedom Nonlinear Dynamic Problems. Journal of Engineering Mechanics - ASCE, 2016, 142, 04016098.	1.6	4
110	Response Spectrum Code-Conforming PEER PBEE using Stochastic Dynamic Analysis and Information Theory. KSCE Journal of Civil Engineering, 2018, 22, 1002-1015.	0.9	4
111	Multi-performance blast pressure-duration curves of laminated glass panes. International Journal of Protective Structures, 2021, 12, 226-244.	1.4	4
112	Finite element modeling and assessment of seismic response of electrical substations porcelain post insulators. Soil Dynamics and Earthquake Engineering, 2021, 150, 106895.	1.9	4
113	Seismic Retrofit of Non-ductile Reinforced Concrete Frames Using Infill Walls as a Rocking Spine. Geotechnical, Geological and Earthquake Engineering, 2010, , 349-357.	0.1	4
114	Seismic evaluation of 1940s asymmetric wood-frame building using conventional measurements and high-definition laser scanning. Earthquake Engineering and Structural Dynamics, 2009, 38, 1175-1197.	2.5	3
115	Experimental Evaluation of In-Span Hinge Details in Reinforced Concrete Box Girder Bridges. Transportation Research Record, 2010, 2200, 127-134.	1.0	3
116	Theoretical Evaluation of Hybrid Simulation Applied to Continuous Plate Structures. Journal of Engineering Mechanics - ASCE, 2016, 142, 04016093.	1.6	3
117	Drift demand of the outer–skin curtain wall system of the Shanghai Tower. Structural Design of Tall and Special Buildings, 2017, 26, e1388.	0.9	3
118	Information Theory for data-driven Risk Analysis: The Informational Coefficient of Correlation as a Measure of Dependency. , 2019, , .		3
119	Distributed Fiber-Optic Strain Sensing of an Innovative Reinforced Concrete Beam–Column Connection. Sensors, 2022, 22, 3957.	2.1	3
120	Seismic behaviour of full-scale lightly reinforced concrete columns under high axial loads. Journal of Building Engineering, 2022, 56, 104817.	1.6	3
121	Comparison of the seismic response of reinforced auger pressure grout and concrete columns. Engineering Structures, 2015, 87, 139-152.	2.6	2
122	Real-Time Emotion Detection via E-See. , 2018, , .		2
123	Lyapunov-Based Nonlinear Solution Algorithm for Structural Analysis. Journal of Engineering Mechanics - ASCE, 2018, 144, 04018082.	1.6	2
124	Transdisciplinary, expediency, and rigor of CACAIE. Computer-Aided Civil and Infrastructure Engineering, 2020, 35, 646-648.	6.3	2
125	Towards Faster Computations and Accurate Execution of Real-Time Hybrid Simulation. Geotechnical, Geological and Earthquake Engineering, 2015, , 65-81.	0.1	2
126	Decision making of innovative building faÃ§ade use in Singapore. , 2015, , .		2

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127	Hierarchical Decision making by Leveraging Utility Theory and Game Theoretic Analysis towards Sustainability in Building Design Operation. , 2018, , .		2
128	Identifying Significant Components of Structures for Seismic Performance Using FOSM Method. Journal of the Earthquake Engineering Society of Korea, 2009, 13, 37-45.	0.1	2
129	Anidolic Day-Light Concentrator in Structural Building Envelope. , 2013, , .		2
130	Multicriteria Lifecycle Analyses for Sustainable and Resilient Building Design. , 2018, , .		2
131	Reinforced Concrete Bridge Columns Repaired with Fiber-Reinforced Polymer Jackets. , 2014, , .		1
132	How to Simulate Column Collapse and Removal in As-built and Retrofitted Building Structures?. Geotechnical, Geological and Earthquake Engineering, 2009, , 427-452.	0.1	1
133	Health monitoring of a bridge system using strong motion data. Smart Structures and Systems, 2009, 5, 427-442.	1.9	1
134	Tail Probability Equivalent Linearization Method for Stochastic Dynamic Analysis of marine Risers. , 2018, , .		1
135	SHAKE TABLE EXPERIMENT ON ONE-STORY RC STRUCTURE WITH AND WITHOUT MASONRY INFILL. , 2006, , 411-426.		1
136	Forensic Investigation of Fire-Induced Collapse of a Steel Building. , 2022, , .		1
137	An Improved Direct Stiffness Calculation Technique for Damage Detection of Bending Structures. Advanced Materials Research, 0, 368-373, 2224-2228.	0.3	0
138	The method of the independent components for sustainable building design. , 2015, , .		0
139	Effective Width of Integral Bent Caps in Reinforced-Concrete Box-Girder Bridges. , 2016, , .		0
140	Progressive Collapse Simulation of Vulnerable Reinforced Concrete Buildings. , 2016, , 107-124.		0
141	Evaluating Current Research Status and Identifying Most Important Future Research Themes. Disaster and Risk Research: GADRI Book Series, 2021, , 21-46.	0.1	0
142	On-board Decision Making Platform for Structural Health Monitoring. , 0, , .		0
143	Prediction of extreme responses of Floating Production Systems using Kernel Density Maximum Entropy. , 2018, , .		0