De-Cheng Feng

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8948328/publications.pdf

Version: 2024-02-01

94 papers	3,378 citations	117571 34 h-index	161767 54 g-index
96 all docs	96 docs citations	96 times ranked	1249 citing authors

#	Article	IF	Citations
1	Machine learning-based compressive strength prediction for concrete: An adaptive boosting approach. Construction and Building Materials, 2020, 230, 117000.	3.2	359
2	Interpretable XGBoost-SHAP Machine-Learning Model for Shear Strength Prediction of Squat RC Walls. Journal of Structural Engineering, 2021, 147, .	1.7	151
3	Implementing ensemble learning methods to predict the shear strength of RC deep beams with/without web reinforcements. Engineering Structures, 2021, 235, 111979.	2.6	147
4	Failure mode classification and bearing capacity prediction for reinforced concrete columns based on ensemble machine learning algorithm. Advanced Engineering Informatics, 2020, 45, 101126.	4.0	139
5	Phase-field regularized cohesive zone model (CZM) and size effect of concrete. Engineering Fracture Mechanics, 2018, 197, 66-79.	2.0	137
6	Finite element modelling approach for precast reinforced concrete beam-to-column connections under cyclic loading. Engineering Structures, 2018, 174, 49-66.	2.6	91
7	Probabilistic failure analysis of reinforced concrete beam-column sub-assemblage under column removal scenario. Engineering Failure Analysis, 2019, 100, 381-392.	1.8	77
8	Softened Damage-Plasticity Model for Analysis of Cracked Reinforced Concrete Structures. Journal of Structural Engineering, 2018, 144, .	1.7	73
9	Progressive collapse performance analysis of precast reinforced concrete structures. Structural Design of Tall and Special Buildings, 2019, 28, e1588.	0.9	70
10	Experimental study on the flexural behavior of concrete beams reinforced with bundled hybrid steel/FRP bars. Engineering Structures, 2019, 197, 109443.	2.6	66
11	Stochastic Nonlinear Behavior of Reinforced Concrete Frames. II: Numerical Simulation. Journal of Structural Engineering, 2016, 142, .	1.7	65
12	Data-Driven Approach to Predict the Plastic Hinge Length of Reinforced Concrete Columns and Its Application. Journal of Structural Engineering, 2021, 147, .	1.7	65
13	Robustness quantification of reinforced concrete structures subjected to progressive collapse via the probability density evolution method. Engineering Structures, 2020, 202, 109877.	2.6	64
14	Collapse simulation of reinforced concrete frame structures. Structural Design of Tall and Special Buildings, 2016, 25, 578-601.	0.9	63
15	Machine-learning interpretability techniques for seismic performance assessment of infrastructure systems. Engineering Structures, 2022, 250, 112883.	2.6	61
16	A flexure-shear Timoshenko fiber beam element based on softened damage-plasticity model. Engineering Structures, 2017, 140, 483-497.	2.6	53
17	Numerical Investigation on the Progressive Collapse Behavior of Precast Reinforced Concrete Frame Subassemblages. Journal of Performance of Constructed Facilities, 2018, 32, .	1.0	52
18	Cyclic behavior modeling of reinforced concrete shear walls based on softened damage-plasticity model. Engineering Structures, 2018, 166, 363-375.	2.6	52

#	Article	IF	Citations
19	Experimental study of prefabricated RC column-foundation assemblies with two different connection methods and using large-diameter reinforcing bars. Engineering Structures, 2020, 205, 110075.	2.6	50
20	Experimental and Numerical Investigation on Progressive Collapse Resistance of Post-Tensioned Precast Concrete Beam-Column Subassemblages. Journal of Structural Engineering, 2020, 146, .	1.7	49
21	Dataâ€driven rapid damage evaluation for lifeâ€cycle seismic assessment of regional reinforced concrete bridges. Earthquake Engineering and Structural Dynamics, 2022, 51, 2730-2751.	2.5	49
22	Development of a Bridge Weigh-in-Motion System Based on Long-Gauge Fiber Bragg Grating Sensors. Journal of Bridge Engineering, 2018, 23, .	1.4	48
23	An efficient fiber beam-column element considering flexureâ€“shear interaction and anchorage bond-slip effect for cyclic analysis of RC structures. Bulletin of Earthquake Engineering, 2018, 16, 5425-5452.	2.3	46
24	Time-dependent reliability-based redundancy assessment of deteriorated RC structures against progressive collapse considering corrosion effect. Structural Safety, 2021, 89, 102061.	2.8	42
25	Enriched Force-Based Frame Element with Evolutionary Plastic Hinge. Journal of Structural Engineering, 2017, 143, .	1.7	41
26	Development of a bridge weigh-in-motion method considering the presence of multiple vehicles. Engineering Structures, 2019, 191, 724-739.	2.6	41
27	A machine learning-based time-dependent shear strength model for corroded reinforced concrete beams. Journal of Building Engineering, 2021, 36, 102118.	1.6	41
28	Seismic retrofitting of existing frame buildings through externally attached sub-structures: State of the art review and future perspectives. Journal of Building Engineering, 2022, 57, 104904.	1.6	41
29	Seismic performance upgrade of RC frame buildings using precast bolt-connected steel-plate reinforced concrete frame-braces. Engineering Structures, 2019, 195, 382-399.	2.6	40
30	Stochastic dynamic response analysis and reliability assessment of non-linear structures under fully non-stationary ground motions. Structural Safety, 2019, 79, 94-106.	2.8	38
31	Development of data-driven prediction model for CFRP-steel bond strength by implementing ensemble learning algorithms. Construction and Building Materials, 2021, 303, 124470.	3.2	38
32	Implicit Gradient Delocalization Method for Force-Based Frame Element. Journal of Structural Engineering, 2016, 142, .	1.7	37
33	Stochastic damage hysteretic model for concrete based on micromechanical approach. International Journal of Non-Linear Mechanics, 2016, 83, 15-25.	1.4	36
34	Damage detection of highway bridges based on long-gauge strain response under stochastic traffic flow. Mechanical Systems and Signal Processing, 2019, 127, 551-572.	4.4	36
35	Research on the seismic retrofitting performance of RC frames using SCâ€PBSPC BRBF substructures. Earthquake Engineering and Structural Dynamics, 2020, 49, 794-816.	2.5	35
36	Pushover-based probabilistic seismic capacity assessment of RCFs retrofitted with PBSPC BRBF sub-structures. Engineering Structures, 2021, 234, 111919.	2.6	35

#	Article	IF	Citations
37	Experimental and theoretical investigations of the existing reinforced concrete frames retrofitted with the novel external SC-PBSPC BRBF sub-structures. Engineering Structures, 2022, 256, 113982.	2.6	34
38	Parametric investigation of the assembled bolt-connected buckling-restrained brace and performance evaluation of its application into structural retrofit. Journal of Building Engineering, 2022, 48, 103988.	1.6	33
39	Stochastic Nonlinear Behavior of Reinforced Concrete Frames. I: Experimental Investigation. Journal of Structural Engineering, 2016, 142, .	1.7	30
40	Probabilistic multi-hazard fragility analysis of RC bridges under earthquake-tsunami sequential events. Engineering Structures, 2021, 238, 112250.	2.6	30
41	A probabilistic bond strength model for corroded reinforced concrete based on weighted averaging of non-fine-tuned machine learning models. Construction and Building Materials, 2022, 318, 125767.	3.2	30
42	Life-cycle seismic performance assessment of aging RC bridges considering multi-failure modes of bridge columns. Engineering Structures, 2021, 244, 112818.	2.6	27
43	Seismic response analysis of nonlinear structures with uncertain parameters under stochastic ground motions. Soil Dynamics and Earthquake Engineering, 2018, 111, 149-159.	1.9	25
44	Seismic fragility analysis of shear-critical concrete columns considering corrosion induced deterioration effects. Soil Dynamics and Earthquake Engineering, 2020, 134, 106165.	1.9	25
45	Seismic control of modularized suspended structures with optimal vertical distributions of the secondary structure parameters. Engineering Structures, 2019, 183, 160-179.	2.6	24
46	State-of-the-art review and investigation of structural stability in multi-story modular buildings. Journal of Building Engineering, 2021, 33, 101844.	1.6	24
47	Investigation of Modeling Strategies for Progressive Collapse Analysis of RC Frame Structures. Journal of Performance of Constructed Facilities, 2019, 33, .	1.0	22
48	Reliability-based vehicle weight limit determination for urban bridge network subjected to stochastic traffic flow considering vehicle-bridge coupling. Engineering Structures, 2021, 247, 113166.	2.6	21
49	Seismic performance of a novel self-sustaining beam-column connection for precast concrete moment-resisting frames. Engineering Structures, 2020, 222, 111096.	2.6	20
50	Efficient numerical model for progressive collapse analysis of prestressed concrete frame structures. Engineering Failure Analysis, 2021, 129, 105683.	1.8	20
51	A new confined concrete model considering the strain gradient effect for RC columns under eccentric loading. Magazine of Concrete Research, 2018, 70, 1189-1204.	0.9	19
52	Experimental and Numerical Study of Outside Strengthening with Precast Bolt-Connected Steel Plateâ€“Reinforced Concrete Frame-Brace. Journal of Performance of Constructed Facilities, 2019, 33, .	1.0	18
53	Analytical modeling of corroded RC columns considering flexure-shear interaction for seismic performance assessment. Bulletin of Earthquake Engineering, 2020, 18, 2165-2190.	2.3	18
54	Reusing & replacing performances of the AB-BRB with thin-walled concrete-infilled steel shells. Thin-Walled Structures, 2020, 157, 107069.	2.7	18

#	Article	IF	Citations
55	Probabilistic Model Based on Bayesian Model Averaging for Predicting the Plastic Hinge Lengths of Reinforced Concrete Columns. Journal of Engineering Mechanics - ASCE, 2021, 147, .	1.6	18
56	Prestressing force monitoring method for a box girder through distributed long-gauge FBG sensors. Smart Materials and Structures, 2018, 27, 015015.	1.8	18
57	Probabilistic Machine-Learning Methods for Performance Prediction of Structure and Infrastructures through Natural Gradient Boosting. Journal of Structural Engineering, 2022, 148, .	1.7	18
58	Dynamic and probabilistic seismic performance assessment of precast prestressed reinforced concrete frames incorporating slab influence through three-dimensional spatial model. Bulletin of Earthquake Engineering, 2022, 20, 6705-6739.	2.3	17
59	Damage mechanics-based modeling approaches for cyclic analysis of precast concrete structures: A comparative study. International Journal of Damage Mechanics, 2020, 29, 965-987.	2.4	16
60	Bond-slip behavior of bundled steel/FRP bars and its implementation in high-fidelity FE modeling of reinforced concrete beams. Construction and Building Materials, 2021, 286, 122887.	3.2	15
61	Random fields representation over manifolds via isometric feature mappingâ€based dimension reduction. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 593-611.	6.3	15
62	Fragility analysis of a prestressed concrete containment vessel subjected to internal pressure via the probability density evolution method. Nuclear Engineering and Design, 2022, 390, 111709.	0.8	15
63	Effectiveness Assessment of TMDs in Bridges under Strong Winds Incorporating Machine-Learning Techniques. Journal of Performance of Constructed Facilities, 2022, 36, .	1.0	15
64	Numerical study of the static and dynamic characteristics of reinforced concrete cassette structures for highâ€rise buildings. Structural Design of Tall and Special Buildings, 2019, 28, e1574.	0.9	14
65	A New Family of Explicit Model-Based Integration Algorithms for Structural Dynamic Analysis. International Journal of Structural Stability and Dynamics, 2019, 19, 1950053.	1.5	14
66	Comparative Study of Damage Detection Methods Based on Long-Gauge FBG for Highway Bridges. Sensors, 2020, 20, 3623.	2.1	14
67	High-fidelity numerical analysis of the damage and failure mechanisms of a prestressed concrete containment vessel under internal pressure. Nuclear Engineering and Design, 2021, 383, 111439.	0.8	14
68	Shaking table test and evaluation of a novel high-rise large span concrete cassette structure. Engineering Structures, 2021, 238, 112205.	2.6	13
69	A recursive dimension-reduction method for high-dimensional reliability analysis with rare failure event. Reliability Engineering and System Safety, 2021, 213, 107710.	5.1	13
70	Physically based constitutive modeling of concrete fatigue and practical numerical method for cyclic loading simulation. Engineering Failure Analysis, 2019, 101, 230-242.	1.8	12
71	Efficient stochastic finite element analysis of irregular wall structures with inelastic random field properties over manifold. Computational Mechanics, 2022, 69, 95-111.	2.2	12
72	Near fault ground motion effects on seismic resilience of frame structures damaged in Wenchuan earthquake. Structure and Infrastructure Engineering, 2020, 16, 1347-1363.	2.0	11

#	Article	IF	Citations
73	Shear Strength of Internal Reinforced Concrete Beam-Column Joints: Intelligent Modeling Approach and Sensitivity Analysis. Advances in Civil Engineering, 2020, 2020, 1-19.	0.4	11
74	Multi-Cross-Reference Method for Highway-Bridge Damage Identification Based on Long-Gauge Fiber Bragg-Grating Sensors. Journal of Bridge Engineering, 2020, 25, .	1.4	10
75	Multi-scale stochastic damage model for concrete and its application to RC shear wall structure. Engineering Computations, 2018, 35, 2287-2307.	0.7	9
76	Probabilistic indicator to classify the failure mode of reinforced-concrete columns. Magazine of Concrete Research, 2019, 71, 734-748.	0.9	9
77	A regularized force-based Timoshenko fiber element including flexure-shear interaction for cyclic analysis of RC structures. International Journal of Mechanical Sciences, 2019, 160, 59-74.	3.6	9
78	Probabilistic Seismic Performance Assessment of RC Frames Retrofitted with External SC-PBSPC BRBF Sub-structures. Journal of Earthquake Engineering, 2022, 26, 5775-5798.	1.4	9
79	Probabilistic seismic demand and fragility analysis of a novel mid-rise large-span cassette structure. Bulletin of Earthquake Engineering, 2022, 20, 383-413.	2.3	9
80	Shake table testing and computational investigation of the seismic performance of modularized suspended building systems. Bulletin of Earthquake Engineering, 2020, 18, 5247-5279.	2.3	8
81	Crossâ€level fragility analysis of modularized suspended buildings based on experimentally validated numerical models. Structural Design of Tall and Special Buildings, 2020, 29, e1778.	0.9	8
82	Investigation of 3D effects on dynamic progressive collapse resistance of RC structures considering slabs and infill walls. Journal of Building Engineering, 2022, 54, 104421.	1.6	8
83	Life-Cycle Performance Assessment of Aging Bridges Subjected to Tsunami Hazards. Journal of Bridge Engineering, 2021, 26, .	1.4	7
84	Numerical Simulation and Parametric Analysis of Precast Concrete Beam-Slab Assembly Based on Layered Shell Elements. Buildings, 2021, 11, 7.	1.4	7
85	Experimental study on the seismic performance of novel precast reinforced concrete grid momentâ€resisting frames. Structural Concrete, 2020, 21, 2028-2043.	1.5	6
86	Implicit gradientâ€enhanced forceâ€based Timoshenko fiber element formulation for reinforced concrete structures. International Journal for Numerical Methods in Engineering, 2021, 122, 325-347.	1.5	5
87	Analytical examination of mesh-dependency issue for uniaxial RC elements and new fracture energy-based regularization technique. International Journal of Damage Mechanics, 2023, 32, 321-339.	2.4	5
88	Framework for calculating seismic fragility function of urban road networks: A case study on Tangshan City, China. Structure and Infrastructure Engineering, 2020, , 1-15.	2.0	4
89	Experimental study of a novel open-web sandwich slab and modified design procedure. Magazine of Concrete Research, 2021, , 1-20.	0.9	4
90	Seismic Performance and Design Process Majorization of a Reinforced Concrete Grid Frame Wall. Journal of Earthquake Engineering, 0, , 1-30.	1.4	4

#	Article	IF	Citations
91	Safety Monitoring of Bearing Replacement for a Concrete High-Speed Railway Bridge Based on Acoustic Emission. Journal of Performance of Constructed Facilities, 2022, 36, .	1.0	4
92	Improved Displacement-Based Timoshenko Beam Element with Enhanced Strains. Journal of Structural Engineering, 2020, 146, 04019221.	1.7	3
93	Seismic and economic performance of a mid-rise cassette structure. Advances in Structural Engineering, 2020, 23, 3541-3554.	1.2	3
94	Optimum weighted arithmetic means of peak- and spectral-based intensity measures for probabilistic seismic demand modeling of modularized suspended buildings. Bulletin of Earthquake Engineering, 2022, 20, 5383-5426.	2.3	2