Seyed Mehdi Zahrai

List of Publications by Year
in descending order

90 papers	1,247 citations	361045 20 h-index	476904 29 g-index
92 all docs	92 docs citations	92 times ranked	745 citing authors

#	Article	IF	Citations
1	Effect of glass powder & polypropylene fibers on compressive and flexural strengths, toughness and ductility of concrete: An environmental approach. Structures, 2021, 33, 4616-4628.	1.7	66
2	Semi-active seismic control of an 11-DOF building model with TMD+MR damper using type-1 and -2 fuzzy algorithms. JVC/Journal of Vibration and Control, 2018, 24, 2938-2953.	1.5	65
3	Experimental investigation of utilizing TLD with baffles in a scaled down 5-story benchmark building. Journal of Fluids and Structures, 2012, 28, 194-210.	1.5	53
4	Optimum parameters of tuned liquid column-gas damper for mitigation of seismic-induced vibrations of offshore jacket platforms. Structural Control and Health Monitoring, 2013, 20, 422-444.	1.9	40
5	Fuzzy control of asymmetric plan buildings with active tuned mass damper considering soil-structure interaction. Soil Dynamics and Earthquake Engineering, 2018, 115, 838-852.	1.9	40
6	Ductile End-Diaphragms for Seismic Retrofit of Slab-on-Girder Steel Bridges. Journal of Structural Engineering, 1999, 125, 71-80.	1.7	39
7	Effectiveness-robustness objectives in MTMD system design: An evolutionary optimal design methodology. Structural Control and Health Monitoring, 2010, 17, 218-236.	1.9	39
8	Semi-active seismic control of buildings using MR damper and adaptive neural-fuzzy intelligent controller optimized with genetic algorithm. JVC/Journal of Vibration and Control, 2019, 25, 273-285.	1.5	39
9	Impact of Diaphragms on Seismic Response of Straight Slab-on-Girder Steel Bridges. Journal of Structural Engineering, 1998, 124, 938-947.	1.7	37
10	Quasi-static cyclic tests on super-lightweight EPS concrete shear walls. Engineering Structures, 2014, 65, 62-75.	2.6	37
11	Cyclic Testing of Ductile End Diaphragms for Slab-on-Girder Steel Bridges. Journal of Structural Engineering, 1999, 125, 987-996.	1.7	36
12	Optimum geometry of tuned liquid column-gas damper for control of offshore jacket platform vibrations under seismic excitation. Earthquake Engineering and Engineering Vibration, 2012, 11, 579-592.	1.1	28
13	Seismic control of irregular multistory buildings using active tendons considering soilâ€“structure interaction effect. Soil Dynamics and Earthquake Engineering, 2016, 89, 100-115.	1.9	28
14	Cyclic testing of tubular web RBS connections in deep beams. Journal of Constructional Steel Research, 2016, 117, 214-226.	1.7	28
15	Improving nonlinear behavior and tensile and compressive strengths of sustainable lightweight concrete using waste glass powder, nanosilica, and recycled polypropylene fiber. Nonlinear Engineering, 2022, 11, 58-70.	1.4	26
16	Effect of Severe Corrosion on Cyclic Ductility of Steel. Journal of Structural Engineering, 1997, 123, 1478-1486.	1.7	23
17	Innovative multi-level control with concentric pipes along brace to reduce seismic response of steel frames. Journal of Constructional Steel Research, 2016, 127, 120-135.	1.7	22
18	Seismic reliability-based design of inelastic base-isolated structures with lead-rubber bearing systems. Soil Dynamics and Earthquake Engineering, 2018, 115, 589-605.	1.9	22

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19	Cyclic testing of chevron braced steel frames with IPE shear panels. Steel and Composite Structures, 2015, 19, 1167-1184.	1.3	22
20	Effect of waste glass powder, microsilica and polypropylene fibers on ductility, flexural and impact strengths of lightweight concrete. International Journal of Structural Integrity, 2022, 13, 511-533.	1.8	22
21	Experimental and numerical evaluation of proposed precast concrete connections. Structural Concrete, 2016, 17, 959-971.	1.5	21
22	Cyclic Testing of Multilevel Pipe in Pipe Damper. Journal of Earthquake Engineering, 2019, 23, 1695-1718.	1.4	20
23	Improving seismic behavior using a hybrid control system of friction damper and vertical shear panel in series. Structures, 2021, 31, 369-379.	1.7	19
24	Slack free connections to improve seismic behavior of tension-only braces: An experimental and analytical study. Engineering Structures, 2017, 136, 54-67.	2.6	18
25	Using AP2RC & P1RB micro-silica gels to improve concrete strength and study of resulting contamination. Advances in Concrete Construction, 2016, 4, 195-206.	0.4	17
26	Experimental and analytical investigations on seismic behavior of ductile steel knee braced frames. Steel and Composite Structures, 2014, 16, 1-21.	1.3	17
27	Contribution of pre-slacked cable braces to dynamic stability of non-ductile frames; an analytical study. Engineering Structures, 2016, 117, 305-320.	2.6	15
28	Reducing seismic vibrations of typical steel buildings using new multi-level yielding pipe damper. International Journal of Steel Structures, 2017, 17, 983-998.	0.6	14
29	Performance of typical plan concrete buildings under progressive collapse. Structures, 2021, 31, 1163-1172.	1.7	14
30	Experimental study on innovative tubular web RBS connections in steel MRFs with typical shallow beams. Structural Engineering and Mechanics, 2016, 57, 785-808.	1.0	14
31	Displacement-based energy dissipation systems for steel bridges diaphragms. Journal of Constructional Steel Research, 2002, 58, 801-817.	1.7	12
32	Numerical studies of the conventional impact damper with discrete frequency optimization and uncertainty considerations. Scientia Iranica, 2012, 19, 166-178.	0.3	12
33	Proposed design procedure for gusset plate dimensions and force distribution at its interfaces to beam and column. Engineering Structures, 2019, 178, 554-572.	2.6	12
34	Proposed Modification for ADAS Damper to Eliminate Axial Force and Improve Seismic Performance. Journal of Earthquake Engineering, 2022, 26, 5130-5152.	1.4	12
35	Using friction dampers in retrofitting a steel structure with masonry infill panels. Steel and Composite Structures, 2015, 19, 309-325.	1.3	12
36	Analytical study on cyclic behavior of chevron braced frames with shear panel system considering post-yield deformation. Canadian Journal of Civil Engineering, 2013, 40, 633-643.	0.7	10

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37	Evaluation of hysteretic behavior of eccentrically braced frames with zipper-strut upgrade. Journal of Constructional Steel Research, 2013, 83, 10-20.	1.7	10
38	Cyclic Performance of an Elliptical-Shaped Damper with Shear Diaphragms in Chevron Braced Steel Frames. Journal of Earthquake Engineering, 2018, 22, 1209-1232.	1.4	10
39	Cyclic Performance Evaluation of Hollow Structural Section (HSS) and Concrete-Filled Tube (CFT) Braces. International Journal of Structural Stability and Dynamics, 2019, 19, 1950140.	1.5	10
40	Numerical study of visco-hyperelastic damper with high axial damping rubber subjected to harmonic loading. Structures, 2021, 29, 1550-1561.	1.7	10
41	Experimental study on brace to HSS column connection using through-gusset plate. Engineering Structures, 2021, 234, 111948.	2.6	10
42	Toward buckling free tension-only braces using slack free connections. Journal of Constructional Steel Research, 2015, 115, 329-345.	1.7	9
43	Innovative adaptive viscous damper to improve seismic control of structures. JVC/Journal of Vibration and Control, 2019, 25, 1833-1851.	1.5	9
44	Numerical and experimental study on the behavior of drilled flange steel beam to CFT column connections. Structures, 2020, 28, 726-740.	1.7	9
45	Study of an innovative two-stage control system: Chevron knee bracing & shear panel in series connection. Structural Engineering and Mechanics, 2013, 47, 881-898.	1.0	9
46	Compressive behavior and design of octagonal rubberized concrete-filled double steel tubular stub columns stiffened by headed studs. Structures, 2022, 42, 104-124.	1.7	9
47	Studying the Rehabilitation of Existing Structures Using Compound System of Cables and Shape Memory Alloys. , 2009, , .		8
48	Response modification factor due to ductility of screen-grid ICF wall system in high seismic risk zones. KSCE Journal of Civil Engineering, 2017, 21, 258-264.	0.9	8
49	Iterative step-by-step procedure for optimal placement and design of viscoelastic dampers to improve damping ratio. Structural Design of Tall and Special Buildings, 2017, 26, e1361.	0.9	8
50	Multiobjective optimal placement of active tendons to control irregular multistory buildings with soilâ€“structure interaction. Structural Design of Tall and Special Buildings, 2019, 28, e1581.	0.9	8
51	Seismic performance of simple steel frames with buckling-restrained knee braces & SMA to reduce residual displacement. Soil Dynamics and Earthquake Engineering, 2020, 137, 106268.	1.9	8
52	Analytical and numerical studies on reducing lateral restraints in conventional & all steel Buckling Restrained Braces. Journal of Building Engineering, 2020, 32, 101513.	1.6	8
53	Increasing plastic hinge length using two pipes in a proposed web reduced beam section, an experimental and numerical study. Steel and Composite Structures, 2017, 23, 421-433.	1.3	8
54	Analytical study on seismic behavior of proposed hybrid tension-only braced frames. Structural Design of Tall and Special Buildings, 2017, 26, e1310.	0.9	7

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55	Improving Seismic Behavior of MRFs by U-shaped Hysteretic Damper Along Diagonal Brace. International Journal of Steel Structures, 2019, 19, 543-558.	0.6	7
56	Seismic performance of chevron braced frames with shape memory alloy vertical shear link. Structural Design of Tall and Special Buildings, 2019, 28, e1658.	0.9	7
57	Hysteretic behavior of link beams with different cross-sections and stiffener arrangements. Journal of Constructional Steel Research, 2020, 170, 106084.	1.7	7
58	Effect of rotationally restrained and Pasternak foundation on buckling of an orthotropic rectangular Mindlin plate. Mechanics of Advanced Materials and Structures, 2018, 25, 592-599.	1.5	6
59	Effect of bolted shear connectors on the axial load-bending moment interaction capacity of CFT columns. Structures, 2021, 29, 92-106.	1.7	6
60	Using two-stage method in reinforced concrete bridge piers for damage quantification. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2019, 172, 422-436.	0.4	5
61	Application of a Comprehensive Seismic Retrofit Procedure for Steel Buildings Using Nonlinear Viscous Dampers. International Journal of Civil Engineering, 2019, 17, 1261-1279.	0.9	5
62	Cyclic Behavior of SCBFs with Through-Gusset Plate Connections and Concrete-Filled Tube Columns. Journal of Earthquake Engineering, 2022, 26, 3885-3913.	1.4	5
63	Sensitivity Analysis of Tubular-Web Reduced Beam Section Connections Under Cyclic Loading. International Journal of Steel Structures, 2021, 21, 100-117.	0.6	5
64	Effect of stiffener arrangement on hysteretic behavior of link-to-column connections. Structural Engineering and Mechanics, 2016, 57, 1051-1064.	1.0	5
65	Effect of impact damper on SDOF system vibrations under harmonic and impulsive excitations. Journal of Physics: Conference Series, 2009, 181, 012066.	0.3	4
66	Towards lateral performance of CBF with unwanted eccentric connection: A finite element modeling approach. KSCE Journal of Civil Engineering, 2014, 18, 1421-1428.	0.9	4
67	A variably baffled tuned liquid damper to reduce seismic response of a five-storey building. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2018, 171, 306-315.	0.4	4
68	Proposed Relationship for Proper Shear Strength of Elliptical Damper Based on Its Geometrical Parameters. International Journal of Steel Structures, 2018, 18, 880-890.	0.6	4
69	Numerical Study on the Impact of Out-of-Plane Eccentricity on Lateral Behavior of Concentrically Braced Frames. International Journal of Steel Structures, 2019, 19, 341-350.	0.6	4
70	Evaluating ultra low cycle fatigue based on ductile fracture model in double core BRBs. Engineering Structures, 2020, 223, 111158.	2.6	4
71	Through gusset connection for two-story X-braced frames, a numerical study. Structures, 2020, 27, 285-296.	1.7	4
72	Tubular Web Reduced Beam Section (TW-RBS) connection, a numerical and experimental study and result comparison. Steel and Composite Structures, 2017, 23, 571-583.	1.3	4

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73	Energy dissipating stiff diaphragms for steel bridges in seismic regions. Journal of Constructional Steel Research, 1998, 46, 42-43.	1.7	3
74	Impact of seismic excitation characteristics on the efficiency of tuned liquid column dampers. Earthquake Engineering and Engineering Vibration, 2006, 5, 235-243.	1.1	3
75	Large-scale seismic isolation through regulated liquefaction: a feasibility study. Earthquake Engineering and Engineering Vibration, 2016, 15, 579-595.	1.1	3
76	Investigation of Seismic Performance of (RBS) and Drilled Flange Connection (DFC) Containing rhombus Shaped Hole in Steel Moment Frames. Australian Journal of Civil Engineering, 2020, 18, 246-262.	0.6	3
77	Drift-based seismic design procedure for Buckling Restrained Braced Frames. Structures, 2021, 30, 62-74.	1.7	3
78	Full-scale tests on two-story SCBFs with Throughâ€“Gusset Plate in brace-to-CFT column connections. Journal of Constructional Steel Research, 2021, 187, 106946.	1.7	3
79	Experimental study on damage detection of RC bridge piers under ambient vibration. Journal of Vibroengineering, 2018, 20, 1087-1098.	0.5	3
80	Cable-pulley brace to improve story drift distribution of MRFs with large openings. Steel and Composite Structures, 2016, 21, 863-882.	1.3	3
81	Tubular Web RBS Connection to Improve Seismic Behavior of Moment Resisting Steel Frames. Scientia Iranica, 2017, .	0.3	3
82	Improving semi-active vibration control of an 11-story structure with non-linear behavior and floating fuzzy logic algorithm. Structures, 2022, 39, 132-146.	1.7	3
83	Seismic Design and Performance of Ductile End-Diaphragms in Slab-on-Girder Steel Bridges with Flexible Substructure. Journal of Bridge Engineering, 2017, 22, 04017098.	1.4	2
84	Bending, second-order and buckling analysis of non-prismatic beam-columns by differential quadrature method. Applied Mathematical Modelling, 2018, 63, 362-373.	2.2	2
85	Seismic behavior of steel frames with lightweight-low strength industrialized infill walls. Earthquake and Structures, 2015, 9, 1273-1290.	1.0	2
86	Experimental Study of High Axial Damping Rubber (HADR) in New Viscoelastic Dampers. Journal of Testing and Evaluation, 2020, 48, 4387-4401.	0.4	2
87	Improvement of Seismic Performance of Beam-column Connection With Replaceable Drilled Attachment Parts. Periodica Polytechnica: Civil Engineering, 0, , .	0.6	2
88	Effect of higher order terms of Maclaurin expansion in nonlinear analysis of the Bernoulli beam by single finite element. Structural Engineering and Mechanics, 2016, 58, 949-966.	1.0	1
89	Cyclic behavior of CBFs having vertical pipe and box fuses with different aspect ratios. Innovative Infrastructure Solutions, 2022, 7, .	1.1	1
90	Comparing cyclic behaviour of RBS, DFC and proposed rigid connections in a steel moment frame with CFT column. Australian Journal of Civil Engineering, 2021, 19, 164-183.	0.6	0