Konstantinos D Tsavdaridis

List of Publications by Year
in descending order

105 papers	1,998 citations	293460 24 h-index	325983 40 g-index

122 all docs	122 docs citations	122 times ranked	1237 citing authors

#	Article	IF	Citations
1	Effect of rotational inertia on building response to earthquakes via a closed-form solution. Mechanics Based Design of Structures and Machines, 2023, 51, 1842-1855.	3.4	1
2	Lateralâ€“torsional buckling resistance prediction model for steel cellular beams generated by Artificial Neural Networks (ANN). Thin-Walled Structures, 2022, 170, 108592.	2.7	37
3	Optimality criteria-based minimum-weight design method for modular building systems subjected to generalised stiffness constraints: A comparative study. Engineering Structures, 2022, 251, 113472.	2.6	12
4	Shear connection of prefabricated ultra-lightweight concrete slab systems (PUSSTM). Structures, 2022, 36, 65-97.	1.7	1
5	Finite Element Modelling to Predict the Fire Performance of Bio-Inspired 3D-Printed Concrete Wall Panels Exposed to Realistic Fire. Buildings, 2022, 12, 111.	1.4	7
6	A comprehensive review and classification of inter-module connections for hot-rolled steel modular building systems. Journal of Building Engineering, 2022, 50, 104006.	1.6	14
7	Shear performance of SupaCee sections with openings: Numerical studies. Journal of Constructional Steel Research, 2022, 190, 107142.	1.7	7
8	EC3 design of web-post buckling resistance for perforated steel beams with elliptically-based web openings. Thin-Walled Structures, 2022, 175, 109196.	2.7	9
9	Buckling and ultimate load prediction models for perforated steel beams using machine learning algorithms. Journal of Building Engineering, 2022, 51, 104316.	1.6	10
10	Informed Finite Element Modelling for Wire and Arc Additively Manufactured Metallicsâ€”A Case Study on Modular Building Connections. Buildings, 2022, 12, 5.	1.4	2
11	Numerical investigation of cold-formed stainless steel lipped channels with longitudinal stiffeners subjected to shear. Thin-Walled Structures, 2021, 158, 107179.	2.7	4
12	A waveletâ€based approach for describing the mechanical behaviour of cellular beams. Steel Construction, 2021, 14, 47-54.	0.4	0
13	A novel progressive grid generation method for free-form grid structure design and case studies. Journal of Building Engineering, 2021, 34, 101866.	1.6	2
14	Numerical simulation and design of stainless steel hollow flange beams under shear. Journal of Constructional Steel Research, 2021, 176, 106414.	1.7	4
15	A Review of Optimised Additively Manufactured Steel Connections for Modular Building Systems. , 2021, , 357-373.		5
16	Bending-shear interaction of cold-formed stainless steel lipped channel sections. Structures, 2021, 30, 1042-1055.	1.7	4
17	Steel-Concrete Composite Beams with Precast Hollow-Core Slabs: A Sustainable Solution. Sustainability, 2021, 13, 4230.	1.6	18
18	Buckling and post-buckling analyses of composite cellular beams. Composite Structures, 2021, 262, 113616.	3.1	22

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19	A simplified design approach for predicting the flexural behavior of TRM-strengthened RC beams under cyclic loads. Construction and Building Materials, 2021, 285, 122799.	3.2	8
20	Form finding of assembled lattice structure considering the effect of joint stiffness. Structures, 2021, 31, 1096-1105.	1.7	4
21	Performance of Ultra Shallow Floor Beams (USFB) exposed to standard and natural fires. Journal of Building Engineering, 2021, 38, 102192.	1.6	3
22	Ultimate strength prediction of steelâ€“concrete composite cellular beams with PCHCS. Engineering Structures, 2021, 236, 112082.	2.6	17
23	Experimental behaviour of non-seismical RWS connections with perforated beams under cyclic actions. Journal of Constructional Steel Research, 2021, 183, 106756.	1.7	11
24	Flexural Behaviour of Prefabricated Ultraâ€Shallow Steelâ€Concrete Composite Slabs. Ce/Papers, 2021, 4, 787-794.	0.1	0
25	Testing a Prefabricated Ultraâ€Shallow Composite Flooring System with Lightweight Concrete and Shear Studs. Ce/Papers, 2021, 4, 587-592.	0.1	0
26	The Effect of Degree of Composite Action on Reduced Web Section (RWS) Connections. Ce/Papers, 2021, 4, 843-849.	0.1	2
27	Digitally enabled modular construction for promoting modular components reuse: A UK view. Journal of Building Engineering, 2021, 42, 102820.	1.6	22
28	A practical design formulation for perforated beams with openings strengthened with ring type stiffeners subject to Vierendeel actions. Journal of Building Engineering, 2021, 43, 102915.	1.6	3
29	Composite action on web-post buckling shear resistance of composite cellular beams with PCHCS and PCHCSCT. Engineering Structures, 2021, 246, 113065.	2.6	16
30	Evaluation of the ultimate eccentric load of rectangular CFSTs using advanced neural network modeling. Engineering Structures, 2021, 248, 113297.	2.6	44
31	Shear Behaviour of Cold-Formed Stainless Steel Lipped Channels with Reduced Support Restraints. Lecture Notes in Civil Engineering, 2021, , 231-242.	0.3	0
32	Effect of Corner Strength Enhancement on Shear Behaviour of Stainless Steel Lipped Channel Sections. Lecture Notes in Civil Engineering, 2021, , 219-230.	0.3	0
33	Application of Topology Optimisation to Steel Node-Connections and Additive Manufacturing. , 2021, , 374-390.		1
34	Simplified Density Indexes of Walls and Tie-Columns for Confined Masonry Buildings in Seismic Zones. Journal of Earthquake Engineering, 2020, 24, 447-469.	1.4	7
35	Numerical investigation of web crippling in fastened aluminium lipped channel sections under two-flange loading conditions. Structures, 2020, 23, 351-365.	1.7	21
36	Strengthening Techniques for Greenhouses. AgriEngineering, 2020, 2, 37-54.	1.7	9

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37	Numerical modelling and shear design rules of stainless steel lipped channel sections. Journal of Constructional Steel Research, 2020, 168, 105873.	1.7	9
38	Designing efficient grid structures considering structural imperfection sensitivity. Engineering Structures, 2020, 204, 109910.	2.6	15
39	Elastic and inelastic buckling of steel cellular beams under strong-axis bending. Thin-Walled Structures, 2020, 156, 106955.	2.7	19
40	Topology optimisation of lattice telecommunication tower and performance-based design considering wind and ice loads. Structures, 2020, 27, 2379-2399.	1.7	11
41	Optimised cold-formed steel beams in modular building applications. Journal of Building Engineering, 2020, 32, 101607.	1.6	22
42	Optimal design of cold-formed steel lipped channel beams: Combined bending, shear, and web crippling. Structures, 2020, 28, 825-836.	1.7	19
43	Embodied Energy Optimization of Steel-Concrete Composite Beams using a Genetic Algorithm. Procedia Manufacturing, 2020, 44, 417-424.	1.9	6
44	Monotonic axial compressive behaviour and confinement mechanism of square CFRP-steel tube confined concrete. Engineering Structures, 2020, 217, 110802.	2.6	75
45	New distortional buckling design rules for slotted perforated cold-formed steel beams. Journal of Constructional Steel Research, 2020, 168, 106006.	1.7	15
46	Shape Optimization of Assembled Single-Layer Grid Structure with Semi-Rigid Joints. Procedia Manufacturing, 2020, 44, 12-19.	1.9	11
47	Structural behaviour of optimized coldâ€formed steel beams. Steel Construction, 2020, 13, 294-304.	0.4	25
48	Shear connection of prefabricated slabs with LWC - Part1: Experimental and analytical studies. Journal of Constructional Steel Research, 2020, 169, 106016.	1.7	9
49	Genetic Algorithm for Embodied Energy Optimisation of Steel-Concrete Composite Beams. Sustainability, 2020, 12, 3102.	1.6	8
50	Web crippling behaviour and design of aluminium lipped channel sections under two flange loading conditions. Thin-Walled Structures, 2019, 144, 106265.	2.7	24
51	Prefabricated Composite Flooring Systems with Normal and Lightweight Concretes. Ce/Papers, 2019, 3, 257-263.	0.1	0
52	Modular Building Design: Postâ€Brexit Housing. Ce/Papers, 2019, 3, 219-224.	0.1	2
53	Finite Element Analyses of Coldâ€formed Stainless Steel Beams Subject to Shear. Ce/Papers, 2019, 3, 931-936.	0.1	5
54	Seismic behaviour of RWS moment connections to deep columns with European sections. Journal of Constructional Steel Research, 2019, 161, 416-435.	1.7	23

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55	Neural Network-Based Formula for the Buckling Load Prediction of I-Section Cellular Steel Beams. Computers, 2019, 8, 2.	2.1	45
56	Behavior of Circular Fiber-Reinforced Polymerâ€“Steel-Confined Concrete Columns Subjected to Reversed Cyclic Loads: Experimental Studies and Finite-Element Analysis. Journal of Structural Engineering, 2019, 145, .	1.7	96
57	Application of structural topology optimisation in aluminium cross-sectional design. Thin-Walled Structures, 2019, 139, 372-388.	2.7	24
58	Beam-to-beam eccentric end plate connections - Experimental comparison to fin plate and partial-depth end plate connections. Structures, 2019, 19, 411-423.	1.7	9
59	The evolution of composite flooring systems: applications, testing, modelling and eurocode design approaches. Journal of Constructional Steel Research, 2019, 155, 286-300.	1.7	74
60	Assessment and retrofitting of an existing steel structure subjected to wind-induced failure analysis. Journal of Building Engineering, 2019, 23, 53-67.	1.6	8
61	An evaluation of modelling approaches and column removal time on progressive collapse of building. Journal of Constructional Steel Research, 2019, 153, 243-253.	1.7	38
62	Form Finding and Dimensioning of Reinfornced Concrete Shell Roof for Akrotiri (Santorini). Journal of the International Association for Shell and Spatial Structures, 2018, 59, 276-285.	0.3	0
63	Response of Asymmetric Slim Floor Beams in Parametric-Fires. Journal of Physics: Conference Series, 2018, 1107, 032009.	0.3	2
64	Life cycle assessment (LCA) and cost (LCC) studies of lightweight composite flooring systems. Journal of Building Engineering, 2018, 20, 624-633.	1.6	63
65	Comprehensive FE Study of the Hysteretic Behavior of Steelâ€“Concrete Composite and Noncomposite RWS Beam-to-Column Connections. Journal of Structural Engineering, 2018, 144, .	1.7	13
66	Novel Optimised Structural Aluminium Cross-Sections Towards 3D Printing. , 2018, , 34-46.		3
67	Fire Resistance of Unprotected Ultra Shallow Floor Beams (USFB): A Numerical Investigation. Fire Technology, 2017, 53, 609-627.	1.5	16
68	Post-fire assessment and reinstatement of steel structures. Journal of Structural Fire Engineering, 2017, 8, 181-201.	0.4	41
69	Effect of grout properties on shear strength of column base connections: FEA and analytical approach. Engineering Structures, 2017, 152, 307-319.	2.6	21
70	FE parametric study of RWS/WUF-B moment connections with elliptically-based beam web openings under monotonic and cyclic loading. International Journal of Steel Structures, 2017, 17, 677-694.	0.6	18
71	Deterioration of Basic Properties of the Materials in FRP-Strengthening RC Structures under Ultraviolet Exposure. Polymers, 2017, 9, 402.	2.0	36
72	Pushover Analysis of Steel Seismic Resistant Frames with Reduced Web Section and Reduced Beam Section Connections. Frontiers in Built Environment, 2017, 3, .	1.2	13

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73	Mechanical properties of High and Very High Steel at elevated temperatures and after cooling down. Fire Science Reviews, 2017, 6, .	0.9	27
74	Fire resistance of axially restrained and partially unprotected Ultra Shallow Floor Beams (USFBÂ®) and DELTABEAMÂ® composite beams. , 2017, , 81-90.		3
75	Behaviors of axially restrained tubular members under fireâ€"part 1: A novel test set-up. , 2017, , 91-99.		0
76	Effect of Nano-Alumina on Pore Structure and Durability of Class F Fly Ash Self-Compacting Mortar. American Journal of Engineering and Applied Sciences, 2016, 9, 323-333.	0.3	35
77	Performance of fixed-parameter control algorithms on high-rise structures equipped with semi-active tuned mass dampers. Structural Design of Tall and Special Buildings, 2016, 25, 340-354.	0.9	18
78	Analytical approach of anchor rod stiffness and steel base plate calculation under tension. Structures, 2016, 5, 207-218.	1.7	18
79	A FE parametric study of RWS beam-to-column bolted connections with cellular beams. Journal of Constructional Steel Research, 2016, 116, 92-113.	1.7	39
80	Durability Properties of High-Performance Concrete Incorporating Nano-TiO₂ and Fly Ash. American Journal of Engineering and Applied Sciences, 2015, 8, 519-526.	0.3	20
81	A Review of Human Induced Vibrations on Footbridges. American Journal of Engineering and Applied Sciences, 2015, 8, 422-433.	0.3	8
82	Semi Active Tuned Mass Dampers of Buildings: A Simple Control Option. American Journal of Engineering and Applied Sciences, 2015, 8, 620-632.	0.3	21
83	Numerical evaluation on shell buckling of empty thin-walled steel tanks under wind load according to current American and European design codes. Thin-Walled Structures, 2015, 95, 152-160.	2.7	35
84	Application of structural topology optimisation to perforated steel beams. Computers and Structures, 2015, 158, 108-123.	2.4	63
85	Discussion: Shear behaviour of prestressed steel fibre concrete box-beams. Magazine of Concrete Research, 2015, 67, 215-216.	0.9	0
86	Investigation into the mechanical properties of structural lightweight concrete reinforced with waste steel wires. Magazine of Concrete Research, 2015, 67, 197-205.	0.9	45
87	Assessment of cellular beams with transverse stiffeners and closely spaced web openings. Thin-Walled Structures, 2015, 94, 636-650.	2.7	32
88	Applications of Topology Optimization in Structural Engineering : High - Rise Buildings and Steel Components. Jordan Journal of Civil Engineering, 2015, 9, 335-357.	0.2	24
89	Strengthening Techniques: Code-Deficient Steel Buildings. , 2015, , 3554-3577.		0
90	Modal Analysis. , 2015, , 1505-1522.		0

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91	Seismic Analysis of Steelâ€“Concrete Composite Buildings: Numerical Modeling. , 2015, , 2644-2675.		0
92	Assessment of Perforated Steel Beam-to-Column Connections Subjected to Cyclic Loading. Journal of Earthquake Engineering, 2014, 18, 1302-1325.	1.4	31
93	Strengthening Techniques: Code-Deficient Steel Buildings. , 2014, , 1-26.		4
94	Seismic Analysis of Steelâ€“Concrete Composite Buildings: Numerical Modeling. , 2014, , 1-36.		1
95	Discrete Element Modelling of Masonry Infilled Steel Frames with Multiple Window Openings Subjected to Lateral Load Variations. Open Construction and Building Technology Journal, 2014, 8, 93-103.	0.3	43
96	Modal Analysis. , 2014, , 1-22.		0
97	Experimental and computational study of the vertical shear behaviour of partially encased perforated steel beams. Engineering Structures, 2013, 56, 805-822.	2.6	45
98	Detailed Study of Perforated Beams with Closely Spaced Novel Web Openings. , 2012, , .		0
99	Vierendeel Bending Study of Perforated Steel Beams with Various Novel Web Opening Shapes through Nonlinear Finite-Element Analyses. Journal of Structural Engineering, 2012, 138, 1214-1230.	1.7	95
100	Optimisation of novel elliptically-based web opening shapes of perforated steel beams. Journal of Constructional Steel Research, 2012, 76, 39-53.	1.7	64
101	Web buckling study of the behaviour and strength of perforated steel beams with different novel web opening shapes. Journal of Constructional Steel Research, 2011, 67, 1605-1620.	1.7	153
102	Experimental and Analytical Study of Push-Out Shear Tests in Ultra Shallow Floor Beams. , 2010, , .		6
103	Novel Morphologies of Aluminium Cross-Sections through Structural Topology Optimization Techniques. Key Engineering Materials, 0, 710, 321-326.	0.4	4
104	The Application of Topology Optimisation to the Design of Steel I-Section Beam Web Openings. , 0, , .		1
105	Push-Out Tests for a Novel Prefabricated Steel-Concrete Composite Shallow Flooring System. , 0, , .		5