

# Wen-Shao Chang

## List of Publications by Year in descending order

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65  
papers

1,133  
citations

361045

20  
h-index

454577

30  
g-index

69  
all docs

69  
docs citations

69  
times ranked

837  
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessing Cross Laminated Timber (CLT) as an Alternative Material for Mid-Rise Residential Buildings in Cold Regions in China—A Life-Cycle Assessment Approach. <i>Sustainability</i> , 2016, 8, 1047.	1.6	74
2	Rotational performance of traditional Nuki joints with gap I: theory and verification. <i>Journal of Wood Science</i> , 2006, 52, 58-62.	0.9	65
3	Assessing the Climate Change Impacts of Biogenic Carbon in Buildings: A Critical Review of Two Main Dynamic Approaches. <i>Sustainability</i> , 2018, 10, 2020.	1.6	65
4	Density distribution profile for internodes and nodes of <i>Phyllostachys edulis</i> (Moso bamboo) by computer tomography scanning. <i>Construction and Building Materials</i> , 2015, 93, 197-204.	3.2	52
5	Rotational performance of traditional Nuki joints with gap II: the behavior of butted Nuki joint and its comparison with continuous Nuki joint. <i>Journal of Wood Science</i> , 2007, 53, 401-407.	0.9	50
6	Use of shape-memory alloys in construction: a critical review. <i>Proceedings of the Institution of Civil Engineers: Civil Engineering</i> , 2016, 169, 87-95.	0.3	49
7	Lateral-Load Resistance of Cross-Laminated Timber Shear Walls. <i>Journal of Structural Engineering</i> , 2017, 143, .	1.7	36
8	Energy Saving and Carbon Reduction in the Operation Stage of Cross Laminated Timber Residential Buildings in China. <i>Sustainability</i> , 2017, 9, 292.	1.6	34
9	Human-induced vibration of cross-laminated timber (CLT) floor under different boundary conditions. <i>Engineering Structures</i> , 2020, 204, 110016.	2.6	32
10	Screw reinforcement on dowel-type moment-resisting connections with cracks. <i>Construction and Building Materials</i> , 2019, 215, 59-72.	3.2	28
11	Adaptive tuned mass damper with shape memory alloy for seismic application. <i>Engineering Structures</i> , 2020, 223, 111171.	2.6	28
12	Repair and reinforcement of timber columns and shear walls – A review. <i>Construction and Building Materials</i> , 2015, 97, 14-24.	3.2	27
13	Shaking Table Test of the Taiwanese Traditional Dieh-Dou Timber Frame. <i>International Journal of Architectural Heritage</i> , 2016, 10, 539-557.	1.7	26
14	Structural behavior of traditional Dieh-Dou timber main frame. <i>International Journal of Architectural Heritage</i> , 2018, 12, 555-577.	1.7	26
15	Application of pre-stressed SMA-based tuned mass damper to a timber floor system. <i>Engineering Structures</i> , 2018, 167, 143-150.	2.6	26
16	Seismic resilience timber connection-adoption of shape memory alloy tubes as dowels. <i>Structural Control and Health Monitoring</i> , 2017, 24, e1980.	1.9	25
17	Feasibility of shape memory alloy in a tuneable mass damper to reduce excessive in-service vibration. <i>Structural Control and Health Monitoring</i> , 2017, 24, e1858.	1.9	24
18	Using self-tapping screw to reinforce dowel-type connection in a timber portal frame. <i>Engineering Structures</i> , 2019, 178, 656-664.	2.6	24

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19	Experimental study on mechanical performance of all-softwood pegged mortice and tenon connections. <i>Biosystems Engineering</i> , 2008, 100, 562-570.	1.9	22
20	Water vapour diffusion resistance factor of <i>Phyllostachys edulis</i> (Moso bamboo). <i>Construction and Building Materials</i> , 2017, 141, 216-221.	3.2	21
21	Lightly modified bamboo for structural applications. <i>Proceedings of Institution of Civil Engineers: Construction Materials</i> , 2013, 166, 238-247.	0.7	20
22	Ambient vibration tests of a cross-laminated timber building. <i>Proceedings of Institution of Civil Engineers: Construction Materials</i> , 2015, 168, 121-131.	0.7	20
23	Experimental Tests on a Dowel-Type Timber Connection and Validation of Numerical Models. <i>Buildings</i> , 2017, 7, 116.	1.4	20
24	Construction and monitoring of experimental straw bale building in northeast China. <i>Construction and Building Materials</i> , 2018, 183, 46-57.	3.2	20
25	Predicting the human-induced vibration of cross laminated timber floor under multi-person loadings. <i>Structures</i> , 2021, 29, 65-78.	1.7	20
26	Specific heat capacity measurement of <i>Phyllostachys edulis</i> (Moso bamboo) by differential scanning calorimetry. <i>Construction and Building Materials</i> , 2016, 125, 821-831.	3.2	19
27	On mechanical behavior of traditional timber shear wall in Taiwan I: background and theory derivation. <i>Journal of Wood Science</i> , 2007, 53, 17-23.	0.9	16
28	Porosity estimation of <i>Phyllostachys edulis</i> (Moso bamboo) by computed tomography and backscattered electron imaging. <i>Wood Science and Technology</i> , 2017, 51, 11-27.	1.4	15
29	Improvement of glued-in-rod joint system using compressed wooden dowel. <i>Holzforschung</i> , 2010, 64, .	0.9	14
30	Stiffness of dowel-type timber connections under pre-yield oscillating loads. <i>Engineering Structures</i> , 2014, 65, 21-29.	2.6	14
31	Reducing human-induced vibration of cross-laminated timber floor—Application of multi-tuned mass damper system. <i>Structural Control and Health Monitoring</i> , 2021, 28, e2656.	1.9	14
32	Development of All-Wood Connections with Plywood Fitch Plate and Oak Pegs. <i>Advances in Structural Engineering</i> , 2011, 14, 123-131.	1.2	13
33	Heat and moisture transfer behaviour in <i>Phyllostachys edulis</i> (Moso bamboo) based panels. <i>Construction and Building Materials</i> , 2018, 166, 35-49.	3.2	13
34	Re-tuning an off-tuned tuned mass damper by adjusting temperature of shape memory alloy: Exposed to wind action. <i>Structures</i> , 2020, 25, 180-189.	1.7	13
35	Viscoelastic embedment behaviour of dowels and screws in timber under in-service vibration. <i>European Journal of Wood and Wood Products</i> , 2013, 71, 623-634.	1.3	11
36	Glue-laminated bamboo for dowel-type moment-resisting connections. <i>Composite Structures</i> , 2021, 267, 113848.	3.1	11

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37	The structural behaviour of timber joints subjected to biaxial bending. <i>Earthquake Engineering and Structural Dynamics</i> , 2009, 38, 739-757.	2.5	10
38	Enhancing the seismic performance of historic timber buildings in Asia by applying super-elastic alloy to a Chinese complex bracket system. <i>International Journal of Architectural Heritage</i> , 2018, 12, 734-748.	1.7	9
39	Comparison of Bending Fatigue of NiTi and CuAlMn Shape Memory Alloy Bars. <i>Advances in Materials Science and Engineering</i> , 2020, 2020, 1-9.	1.0	9
40	Feasibility of Using Floor Vibration to Detect Human Falls. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 200.	1.2	9
41	On mechanical behavior of traditional timber shear wall in Taiwan II: simplified calculation and experimental verification. <i>Journal of Wood Science</i> , 2007, 53, 24-30.	0.9	8
42	The effect of simulated flooding on the structural performance of light frame timber shear walls – An experimental approach. <i>Engineering Structures</i> , 2016, 106, 288-298.	2.6	8
43	Static behaviour of a two-tiered Dou-Gong system reinforced by super-elastic alloy. <i>Proceedings of the ICE - Engineering History and Heritage</i> , 2019, 172, 164-173.	0.1	7
44	An analytical model for embedment stiffness of a dowel in timber under cyclic load. <i>European Journal of Wood and Wood Products</i> , 2013, 71, 609-622.	1.3	6
45	The Use of Horizontal Shading Devices to Alleviate Overheating in Residential Buildings in the Severe Cold Region and Cold Region of China. <i>Buildings</i> , 2022, 12, 408.	1.4	6
46	A new proposal to reinforce planked timber shear walls. <i>Journal of Wood Science</i> , 2011, 57, 493-500.	0.9	5
47	Bending properties of finger-jointed Malaysian dark red meranti. <i>International Wood Products Journal</i> , 2019, 10, 49-54.	0.6	5
48	Strain Distribution of Dowel-Type Connections Reinforced with Self-Tapping Screws. <i>Journal of Materials in Civil Engineering</i> , 2020, 32, 04019319.	1.3	5
49	Optimal trajectory planning of complicated robotic timber joints based on particle swarm optimization and an adaptive genetic algorithm. <i>Construction Robotics</i> , 2021, 5, 131-146.	1.2	5
50	Research on the Relationship between Thermal Insulation Thickness and Summer Overheating Risk: A Case Study in Severe Cold and Cold Regions of China. <i>Buildings</i> , 2022, 12, 1032.	1.4	5
51	Nonlinear pre-yield modal properties of timber structures with large-diameter steel dowel connections. <i>Engineering Structures</i> , 2014, 76, 235-244.	2.6	4
52	The effect of drying on timber frame connections post flooding. <i>Proceedings of Institution of Civil Engineers: Construction Materials</i> , 2015, 168, 144-157.	0.7	4
53	Thermal diffusivity measurement of <i>Phyllostachys edulis</i> (Moso bamboo) by the flash method. <i>Holzforschung</i> , 2017, 71, 349-354.	0.9	4
54	Thermal and hygroscopic expansion characteristics of bamboo. <i>Proceedings of the Institution of Civil Engineers: Structures and Buildings</i> , 2018, 171, 463-471.	0.4	4

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55	Drive-in torque for self-tapping screws into timber. Proceedings of Institution of Civil Engineers: Construction Materials, 2020, , 1-13.	0.7	4
56	Performance of Shear Wall Composed of LVL and Cement Fiber Board Sheathing. Journal of Asian Architecture and Building Engineering, 2010, 9, 463-469.	1.2	3
57	Encoding bamboo's nature for freeform structure design. International Journal of Architectural Computing, 2017, 15, 169-182.	0.9	3
58	Study of SMA-dowelled timber connection reinforced by densified veneer wood under cyclic loading. MATEC Web of Conferences, 2019, 275, 01015.	0.1	3
59	"Rope effect" mechanism of self-tapping screws as reinforcement on dowel-type connections. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 0, , 1-10.	0.4	3
60	Bench-scale fire tests of Dark Red Meranti and Spruce finger joints in tension. Construction and Building Materials, 2018, 168, 257-265.	3.2	2
61	Life Cycle Assessment of Timber Components in Taiwan Traditional Temples. Procedia Engineering, 2011, 14, 2683-2691.	1.2	1
62	Self-tapping screws as reinforcement on single-dowel connections with artificial cracks. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2021, , 1-11.	0.4	1
63	Research efforts being devoted to traditional Chuan-Dou timber structures after Chi-Chi earthquake in Taiwan. WIT Transactions on the Built Environment, 2007, , .	0.0	1
64	Dynamic characteristics of Taiwanese traditional Dieh-Dou timber structures. , 2013, , .		1
65	PRELIMINARY STRUCTURAL ANALYSIS STUDY OF THE CHINESE COMPLEX BRACKET SYSTEMS. WIT Transactions on the Built Environment, 2020, , .	0.0	0