Nikos D Lagaros

List of Publications by Year
in descending order

56	2,616	172457	189892
papers	citations	29 h-index	50 g-index

56	56	56	1626
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reliability-based structural optimization using neural networks and Monte Carlo simulation. Computer Methods in Applied Mechanics and Engineering, 2002, 191, 3491-3507.	6.6	413
2	Structural reliability analysis of elastic-plastic structures using neural networks and Monte Carlo simulation. Computer Methods in Applied Mechanics and Engineering, 1996, 136, 145-163.	6.6	218
3	Structural optimization using evolution strategies and neural networks. Computer Methods in Applied Mechanics and Engineering, 1998, 156, 309-333.	6.6	171
4	Accelerated subset simulation with neural networks for reliability analysis. Computer Methods in Applied Mechanics and Engineering, 2012, 223-224, 70-80.	6.6	158
5	Performance-based multiobjective optimum design of steel structures considering life-cycle cost. Structural and Multidisciplinary Optimization, 2006, 32, 1-11.	3.5	112
6	Neural network based prediction schemes of the non-linear seismic response of 3D buildings. Advances in Engineering Software, 2012, 44, 92-115.	3.8	109
7	Life-cycle cost assessment of optimally designed reinforced concrete buildings under seismic actions. Reliability Engineering and System Safety, 2011, 96, 1311-1331.	8.9	102
8	Computationally efficient seismic fragility analysis of geostructures. Computers and Structures, 2009, 87, 1195-1203.	4.4	75
9	An overview to structural seismic design optimisation frameworks. Computers and Structures, 2011, 89, 1155-1165.	4.4	70
10	Multicomponent incremental dynamic analysis considering variable incident angle. Structure and Infrastructure Engineering, 2010, 6, 77-94.	3.7	69
11	Optimum design of steel structures with web openings. Engineering Structures, 2008, 30, 2528-2537.	5.3	64
12	Accelerated topology optimization by means of deep learning. Structural and Multidisciplinary Optimization, 2020, 62, 1185-1212.	3.5	59
13	A general purpose real-world structural design optimization computing platform. Structural and Multidisciplinary Optimization, 2014, 49, 1047-1066.	3.5	52
14	Robust seismic design optimization of steel structures. Structural and Multidisciplinary Optimization, 2007, 33, 457-469.	3.5	49
15	Optimization of Large-Scale 3-D Trusses Using Evolution Strategies and Neural Networks. International Journal of Space Structures, 1999, 14, 211-223.	0.3	46
16	STRUCTURAL SHAPE OPTIMIZATION USING EVOLUTION STRATEGIES. Engineering Optimization, 1999, 31, 515-540.	2.6	46
17	Optimum design of shell structures with random geometric, material and thickness imperfections. International Journal of Solids and Structures, 2006, 43, 6948-6964.	2.7	46
18	Structural optimization: A tool for evaluating seismic design procedures. Engineering Structures, 2006, 28, 1623-1633.	5.3	46

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19	Multi-objective design optimization using cascade evolutionary computations. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 3496-3515.	6.6	45
20	Soft computing methodologies for structural optimization. Applied Soft Computing Journal, 2003, 3, 283-300.	7.2	41
21	The impact of the earthquake incident angle on the seismic loss estimation. Engineering Structures, 2010, 32, 1577-1589.	5.3	39
22	Innovative seismic design optimization with reliability constraints. Computer Methods in Applied Mechanics and Engineering, 2008, 198, 28-41.	6.6	38
23	Vulnerability analysis of large concrete dams using the continuum strong discontinuity approach and neural networks. Structural Safety, 2008, 30, 217-235.	5.3	38
24	Probabilistic seismic slope stability assessment of geostructures. Structure and Infrastructure Engineering, 2010, 6, 179-191.	3.7	38
25	Neurocomputing strategies for solving reliabilityâ€robust design optimization problems. Engineering Computations, 2010, 27, 819-840.	1.4	36
26	Applied soft computing for optimum design of structures. Structural and Multidisciplinary Optimization, 2012, 45, 787-799.	3.5	35
27	Life-cycle cost analysis of design practices for RC framed structures. Bulletin of Earthquake Engineering, 2007, 5, 425-442.	4.1	33
28	An enhanced hybrid method for the simulation of highly skewed non-Gaussian stochastic fields. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 4824-4844.	6.6	32
29	Building design based on energy dissipation: a critical assessment. Bulletin of Earthquake Engineering, 2010, 8, 1375-1396.	4.1	31
30	Simulating the seismic response of embankments via artificial neural networks. Advances in Engineering Software, 2009, 40, 640-651.	3.8	29
31	Evaluation of ASCE-41, ATC-40 and N2 static pushover methods based on optimally designed buildings. Soil Dynamics and Earthquake Engineering, 2011, 31, 77-90.	3.8	27
32	Assessment of seismic design procedures based on the total cost. Earthquake Engineering and Structural Dynamics, 2006, 35, 1381-1401.	4.4	25
33	Reliability based robust design optimization of steel structures. International Journal for Simulation and Multidisciplinary Design Optimization, 2007, 1, 19-29.	1.1	25
34	Lifeâ€cycle cost assessment of midâ€rise and highâ€rise steel and steelâ€“reinforced concrete composite minimum cost building designs. Structural Design of Tall and Special Buildings, 2013, 22, 954-974.	1.9	21
35	Reliability analysis of geostructures based on metaheuristic optimization. Applied Soft Computing Journal, 2014, 22, 544-565.	7.2	20
36	Optimum layout design of onshore wind farms considering stochastic loading. Advances in Engineering Software, 2015, 88, 8-20.	3.8	19

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37	Performance-based earthquake engineering using structural optimisation tools. International Journal of Reliability and Safety, 2006, 1, 59.	0.2	15
38	The Mosaic of Metaheuristic Algorithms in Structural Optimization. Archives of Computational Methods in Engineering, 2022, 29, 5457-5492.	10.2	15
39	OPTIMUM DESIGN OF SPACE FRAMES UNDER SEISMIC LOADING. International Journal of Structural Stability and Dynamics, 2001, 01, 105-123.	2.4	13
40	The effect of uncertainties in seismic loss estimation of steel and reinforced concrete composite buildings. Structure and Infrastructure Engineering, 2013, 9, 546-566.	3.7	12
41	Generation of artificial accelerograms for efficient life-cycle cost analysis of structures. Engineering Structures, 2015, 88, 138-153.	5.3	12
42	Robust Performance-Based Design Optimization of Steel Moment Resisting Frames. Journal of Earthquake Engineering, 2007, 11, 752-772.	2.5	11
43	Evolution Strategies-Based Metaheuristics in Structural Design Optimization. , 2013, , 79-102.		9
44	Life-Cycle Cost Model and Design Optimization of Base-Isolated Building Structures. Frontiers in Built Environment, 2016, 2, .	2.3	9
45	Risk assessment of steel and steel-concrete composite 3D buildings considering sources of uncertainty. Earthquake and Structures, 2014, 6, 19-43.	1.0	8
46	DL-SCALE: a novel deep learning-based model order upscaling scheme for solving topology optimization problems. Neural Computing and Applications, 2021, 33, 7125-7144.	5.6	8
47	Numerical calibration of damage indices. Advances in Engineering Software, 2014, 70, 36-50.	3.8	7
48	Neural Network-Based Prediction: The Case of Reinforced Concrete Members under Simple and Complex Loading. Applied Sciences (Switzerland), 2021, 11, 4975.	2.5	7
49	Optimum topological bracing design of tall steel frames subjected to dynamic loading. Computers and Structures, 2022, 259, 106705.	4.4	4
50	Time History Seismic Analysis. , 2013, , 1-19.		3
51	Time History Seismic Analysis. , 2015, , 3751-3767.		3
52	Damage Index-Based Lower Bound Structural Design. Frontiers in Built Environment, 2018, 4, .	2.3	2
53	Performance-based optimum design of structures with vulnerability objectives. International Journal of Reliability and Safety, 2013, 7, 75.	0.2	1
54	Life cycle cost assessment of masonry structures. Structure and Infrastructure Engineering, 2016, 12, 535-550.	3.7	0

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55	Neural Networks: Some Successful Applications in Computational Mechanics. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2010, , 317-336.	0.6	0
56	Structural Optimization: An Assessment Approach of Design Procedures Against Earthquake Hazard. , 2011, , 185-209.		0