Sujith Mangalathu

List of Publications by Year in Descending Order

57 papers	1,375 citations	21 h-index	36 g-index
63 ext. papers	2,236 ext. citations	3.6 avg, IF	5.96 L-index

#	Paper	IF	Citations
57	Estimation of economic seismic loss of steel moment-frame buildings using a machine learning algorithm. *Engineering Structures*, **2022**, 254, 113877	4.7	0
56	Seismic damage state predictions of reinforced concrete structures using stacked long short-term memory neural networks. *Journal of Building Engineering*, **2022**, 46, 103737	5.2	4
55	Machine-learning interpretability techniques for seismic performance assessment of infrastructure systems. *Engineering Structures*, **2022**, 250, 112883	4.7	8
54	Seismic Mainshock–Aftershock (MS-AS) Vulnerability Assessment of Reinforced Concrete Bridge Exposed to Flood Induced Scour. *Lecture Notes in Civil Engineering*, **2022**, 211-221	0.3	1
53	Material Uncertainty Based Seismic Robustness Assessment of Steel Moment-Resisting Frames. *Lecture Notes in Civil Engineering*, **2022**, 485-494	0.3	
52	Diaphragm abutment Californian bridges subjected to UCERF2 rupture scenarios: Complete damage state evolution with improvements to seismic codes. *Soil Dynamics and Earthquake Engineering*, **2022**, 155, 107204	3.5	1
51	Seismic robustness assessment of steel moment resisting frames employing material uncertainty incorporated incremental dynamic analysis. *Journal of Constructional Steel Research*, **2022**, 191, 107200	3.8	1
50	Fragility functions for highway RC bridge under various flood scenarios. *Engineering Structures*, **2022**, 260, 114244	4.7	0
49	Basin effects on tall bridges in Seattle from M9 Cascadia scenarios. *Engineering Structures*, **2022**, 260, 114252	4.7	0
48	Explainable Machine learning on New Zealand strong motion for PGV and PGA. *Structures*, **2021**, 34, 4977-4985	3.4	3
47	The effect of ground motion characteristics on the fragility analysis of reinforced concrete frame buildings in Australia. *Structures*, **2021**, 34, 3583-3595	3.4	1
46	Data-driven shear strength prediction of steel fiber reinforced concrete beams using machine learning approach. *Engineering Structures*, **2021**, 233, 111743	4.7	37
45	Implementing ensemble learning methods to predict the shear strength of RC deep beams with/without web reinforcements. *Engineering Structures*, **2021**, 235, 111979	4.7	39
44	Bridge fragilities to network fragilities in seismic scenarios: An integrated approach. *Engineering Structures*, **2021**, 237, 112212	4.7	4
43	Quantifying the effects of long-duration earthquake ground motions on the financial losses of steel moment resisting frame buildings of varying design risk category. *Earthquake Engineering and Structural Dynamics*, **2021**, 50, 1451-1468	4	6
42	Machine learning-based approaches for seismic demand and collapse of ductile reinforced concrete building frames. *Journal of Building Engineering*, **2021**, 34, 101905	5.2	15
41	Estimating under-reporting of COVID-19 cases in Indian states: an approach using a delay-adjusted case fatality ratio. *BMJ Open*, **2021**, 11, e042584	3	4

40	Explainable machine learning models for punching shear strength estimation of flat slabs without transverse reinforcement. *Journal of Building Engineering*, **2021**, 39, 102300	5.2	19
39	The effect of rupture directivity, distance and skew angle on the collapse fragilities of bridges. *Bulletin of Earthquake Engineering*, **2021**, 19, 5843	3.7	2
38	Interpretable XGBoost-SHAP Machine-Learning Model for Shear Strength Prediction of Squat RC Walls. *Journal of Structural Engineering*, **2021**, 147, 04021173	3	20
37	Control equation of feasible pre-stresses and feasibility of new types of rotating surface cable domes. *Engineering Structures*, **2021**, 246, 113000	4.7	2
36	Time period estimation of masonry infilled RC frames using machine learning techniques. *Structures* , **2021**, 34, 1560-1566	3.4	6
35	Failure mode and effects analysis of RC members based on machine-learning-based SHapley Additive exPlanations (SHAP) approach. *Engineering Structures*, **2020**, 219, 110927	4.7	71
34	Data-driven machine-learning-based seismic failure mode identification of reinforced concrete shear walls. *Engineering Structures*, **2020**, 208, 110331	4.7	68
33	Classifying earthquake damage to buildings using machine learning. *Earthquake Spectra*, **2020**, 36, 183-208	3.4	50
32	Regional Seismic Risk Assessment of Infrastructure Systems through Machine Learning: Active Learning Approach. *Journal of Structural Engineering*, **2020**, 146, 04020269	3	10
31	Ground Motion-Dependent Rapid Damage Assessment of Structures Based on Wavelet Transform and Image Analysis Techniques. *Journal of Structural Engineering*, **2020**, 146, 04020230	3	12
30	Enhanced fragility analysis of buried pipelines through Lasso regression. *Acta Geotechnica*, **2020**, 15, 471-487	4.9	13
29	Stripe-based fragility analysis of multispan concrete bridge classes using machine learning techniques. *Earthquake Engineering and Structural Dynamics*, **2019**, 48, 1238-1255	4	43
28	Seismic fragility curves for California concrete bridges with flared two-column bents. *Bulletin of Earthquake Engineering*, **2019**, 17, 4299-4319	3.7	8
27	Deep learning-based classification of earthquake-impacted buildings using textual damage descriptions. *International Journal of Disaster Risk Reduction*, **2019**, 36, 101111	4.5	29
26	Machine LearningBased Failure Mode Recognition of Circular Reinforced Concrete Bridge Columns: Comparative Study. *Journal of Structural Engineering*, **2019**, 145, 04019104	3	75
25	Rapid seismic damage evaluation of bridge portfolios using machine learning techniques. *Engineering Structures*, **2019**, 201, 109785	4.7	58
24	Stochastic response of reinforced concrete buildings using high dimensional model representation. *Engineering Structures*, **2019**, 179, 412-422	4.7	13
23	Skew Adjustment Factors for Fragilities of California Box-Girder Bridges Subjected to near-Fault and Far-Field Ground Motions. *Journal of Bridge Engineering*, **2019**, 24, 04018109	2.7	12

22	Parameterized Seismic Fragility Curves for Curved Multi-frame Concrete Box-Girder Bridges Using Bayesian Parameter Estimation. *Journal of Earthquake Engineering*, **2019**, 23, 954-979	1.8	41
21	Predicting the dissolution kinetics of silicate glasses using machine learning. *Journal of Non-Crystalline Solids*, **2018**, 487, 37-45	3.9	63
20	Artificial neural network based multi-dimensional fragility development of skewed concrete bridge classes. *Engineering Structures*, **2018**, 162, 166-176	4.7	97
19	Classification of failure mode and prediction of shear strength for reinforced concrete beam-column joints using machine learning techniques. *Engineering Structures*, **2018**, 160, 85-94	4.7	103
18	Laboratory investigation of pore pressure dissipation in clay around permeable piles. *Canadian Geotechnical Journal*, **2018**, 55, 1257-1267	3.2	21
17	Displacement-Dependent Lateral Earth Pressure Models. *Journal of Engineering Mechanics - ASCE*, **2018**, 144, 04018032	2.4	20
16	Fragility analysis of gray iron pipelines subjected to tunneling induced ground settlement. *Tunnelling and Underground Space Technology*, **2018**, 76, 133-144	5.7	32
15	Critical uncertainty parameters influencing seismic performance of bridges using Lasso regression. *Earthquake Engineering and Structural Dynamics*, **2018**, 47, 784-801	4	69
14	Adjustment Factors to Account for the Effect of Bridge Deck Horizontal Curvature on the Seismic Response of Concrete Box-Girder Bridges in California. *Earthquake Spectra*, **2018**, 34, 893-914	3.4	8
13	Fragility analysis of continuous pipelines subjected to transverse permanent ground deformation. *Soils and Foundations*, **2018**, 58, 1400-1413	2.9	19
12	Probabilistic Seismic Vulnerability Assessment of Tall Horizontally Curved Concrete Bridges in California. *Journal of Performance of Constructed Facilities*, **2018**, 32, 04018080	2	14
11	Simplified evaluation of pipe strains crossing a normal fault through the dissipated energy method. *Engineering Structures*, **2018**, 167, 393-406	4.7	11
10	Permeable piles: An alternative to improve the performance of driven piles. *Computers and Geotechnics*, **2017**, 84, 78-87	4.4	39
9	Compressive and flexural behaviour of reinforced concrete permeable piles. *Engineering Structures*, **2017**, 147, 316-327	4.7	12
8	Performance-based grouping methods of bridge classes for regional seismic risk assessment: Application of ANOVA, ANCOVA, and non-parametric approaches. *Earthquake Engineering and Structural Dynamics*, **2017**, 46, 2587-2602	4	19
7	Seismic Resilience of Concrete Bridges with Flared Columns. *Procedia Engineering*, **2017**, 199, 3065-3070		3
6	Bridge classes for regional seismic risk assessment: Improving HAZUS models. *Engineering Structures*, **2017**, 148, 755-766	4.7	38
5	A comparative analytical study on the fragility assessment of box-girder bridges with various column shapes. *Engineering Structures*, **2017**, 153, 460-478	4.7	21

4	ANCOVA-based grouping of bridge classes for seismic fragility assessment. *Engineering Structures*, **2016**, 123, 379-394	4.7	46
3	Numerical Study on the Peak Strength of Masonry Spandrels with Arches. *Journal of Earthquake Engineering*, **2014**, 18, 169-186	1.8	12
2	Review of strength models for masonry spandrels. *Bulletin of Earthquake Engineering*, **2013**, 11, 521-542	3.7	41
1	Reliability analysis and design of cantilever RC retaining walls against sliding failure. *International Journal of Geotechnical Engineering*, **2011**, 5, 131-141	1.5	5