Pin Zhang

List of Publications by Year
in descending order

31 papers	1,509 citations	361045 20 h-index	433756 31 g-index
32 all docs	32 docs citations	32 times ranked	588 citing authors

#	Article	IF	Citations
1	Prediction of maximum surface settlement caused by earth pressure balance (EPB) shield tunneling with ANN methods. Soils and Foundations, 2019, 59, 284-295.	1.3	150
2	Real-time analysis and regulation of EPB shield steering using Random Forest. Automation in Construction, 2019, 106, 102860.	4.8	130
3	Hybrid meta-heuristic and machine learning algorithms for tunneling-induced settlement prediction: A comparative study. Tunnelling and Underground Space Technology, 2020, 99, 103383.	3.0	125
4	A novel hybrid surrogate intelligent model for creep index prediction based on particle swarm optimization and random forest. Engineering Geology, 2020, 265, 105328.	2.9	116
5	Prediction of shield tunneling-induced ground settlement using machine learning techniques. Frontiers of Structural and Civil Engineering, 2019, 13, 1363-1378.	1.2	101
6	Deformation and stress characteristics of existing twin tunnels induced by close-distance EPBS under-crossing. Tunnelling and Underground Space Technology, 2018, 82, 468-481.	3.0	95
7	A critical evaluation of machine learning and deep learning in shield-ground interaction prediction. Tunnelling and Underground Space Technology, 2020, 106, 103593.	3.0	75
8	Intelligent modelling of clay compressibility using hybrid meta-heuristic and machine learning algorithms. Geoscience Frontiers, 2021, 12, 441-452.	4.3	73
9	A novel feature selection method based on global sensitivity analysis with application in machine learning-based prediction model. Applied Soft Computing Journal, 2019, 85, 105859.	4.1	71
10	An Alâ€based model for describing cyclic characteristics of granular materials. International Journal for Numerical and Analytical Methods in Geomechanics, 2020, 44, 1315-1335.	1.7	57
11	State-of-the-Art Review of Machine Learning Applications in Constitutive Modeling of Soils. Archives of Computational Methods in Engineering, 2021, 28, 3661-3686.	6.0	50
12	A novel deep learning-based modelling strategy from image of particles to mechanical properties for granular materials with CNN and BiLSTM. Computer Methods in Applied Mechanics and Engineering, 2021, 382, 113858.	3.4	48
13	Reinforcement learning based optimizer for improvement of predicting tunneling-induced ground responses. Advanced Engineering Informatics, 2020, 45, 101097.	4.0	47
14	Bayesian neural network-based uncertainty modelling: application to soil compressibility and undrained shear strength prediction. Canadian Geotechnical Journal, 2022, 59, 546-557.	1.4	45
15	Machine learningâ€“based uncertainty modelling of mechanical properties of soft clays relating to timeâ€dependent behavior and its application. International Journal for Numerical and Analytical Methods in Geomechanics, 2021, 45, 1588-1602.	1.7	33
16	Physics-Informed Multifidelity Residual Neural Networks for Hydromechanical Modeling of Granular Soils and Foundation Considering Internal Erosion. Journal of Engineering Mechanics - ASCE, 2022, 148, .	1.6	33
17	An AIoT-based system for real-time monitoring of tunnel construction. Tunnelling and Underground Space Technology, 2021, 109, 103766.	3.0	30
18	Ground settlement induced by tunneling crossing interface of water-bearing mixed ground: A lesson from Changsha, China. Tunnelling and Underground Space Technology, 2020, 96, 103224.	3.0	27

#	Article	IF	Citations
19	Random forest based artificial intelligent model for predicting failure envelopes of caisson foundations in sand. Applied Ocean Research, 2020, 101, 102223.	1.8	26
20	A LSTM surrogate modelling approach for caisson foundations. Ocean Engineering, 2020, 204, 107263.	1.9	26
21	Machine Learning-Based Modelling of Soil Properties for Geotechnical Design: Review, Tool Development and Comparison. Archives of Computational Methods in Engineering, 2022, 29, 1229-1245.	6.0	22
22	Physicsâ€constrained hierarchical dataâ€driven modelling framework for complex pathâ€dependent behaviour of soils. International Journal for Numerical and Analytical Methods in Geomechanics, 2022, 46, 1831-1850.	1.7	22
23	Straightforward prediction for air-entry value of compacted soils using machine learning algorithms. Engineering Geology, 2020, 279, 105911.	2.9	20
24	Modelling the mechanical behaviour of soils using machine learning algorithms with explicit formulations. Acta Geotechnica, 2022, 17, 1403-1422.	2.9	18
25	Ground Response to Horizontal Spoil Discharge Jet Grouting with Impacts on the Existing Tunnels. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, 05020006.	1.5	17
26	Analytical and Semi-Analytical Solutions for Describing Tunneling-Induced Transverse and Longitudinal Settlement Troughs. International Journal of Geomechanics, 2020, 20, .	1.3	15
27	BiLSTM-Based Soilâ€“Structure Interface Modeling. International Journal of Geomechanics, 2021, 21, .	1.3	14
28	Threeâ€dimensional quantitative analysis on granular particle shape using convolutional neural network. International Journal for Numerical and Analytical Methods in Geomechanics, 2022, 46, 187-204.	1.7	10
29	Image-Based 3D Reconstruction of Granular Grains via Hybrid Algorithm and Level Set with Convolution Kernel. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2022, 148, .	1.5	7
30	CNN-Based Intelligent Method for Identifying GSD of Granular Soils. International Journal of Geomechanics, 2021, 21, .	1.3	3
31	Application of Horizontal MJS Piles in Tunneling Beneath Existing Twin Tunnels. Springer Series in Geomechanics and Geoengineering, 2018, , 323-331.	0.0	3