

# Hong-Hu Zhu

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

117 papers	1,927 citations	26 h-index	38 g-index
128 ext. papers	2,532 ext. citations	3.3 avg, IF	5.36 L-index

#	Paper	IF	Citations
117	Development and Evaluation of Arduino-Based Automatic Irrigation System for Regulation of Soil Moisture. <i>International Journal of Geosynthetics and Ground Engineering</i> , <b>2022</b> , 8, 1	2	0
116	Modeling uplift failure of pipes buried in sand using material point method. <i>Tunnelling and Underground Space Technology</i> , <b>2022</b> , 119, 104203	5.7	0
115	Experimental Study on Overlying Strata Deformation and Failure Using Distributed Intelligent Sensing. <i>Lecture Notes in Civil Engineering</i> , <b>2022</b> , 315-328	0.3	
114	Distributed Fiber Optic Sensing in Pile Load Tests: Technological Development and Applications. <i>Lecture Notes in Civil Engineering</i> , <b>2022</b> , 1-11	0.3	0
113	Key-Block Theorem Application on Discontinuous Rock Slope Instabilities and Rock Mass Description. <i>Lecture Notes in Civil Engineering</i> , <b>2022</b> , 200-208	0.3	
112	Research Status and Prospect of Anti-slide Piles for Slope Stabilization. <i>Lecture Notes in Civil Engineering</i> , <b>2022</b> , 223-236	0.3	
111	Forecasting reservoir-induced landslide deformation using genetic algorithm enhanced multivariate Taylor series Kalman filter. <i>Bulletin of Engineering Geology and the Environment</i> , <b>2022</b> , 81, 1	4	0
110	Monitoring Flexure Behavior of Compacted Clay Beam Using High-Resolution Distributed Fiber Optic Strain Sensors. <i>Geotechnical Testing Journal</i> , <b>2022</b> , 45, 20200331	1.3	0
109	Deformation prediction of reservoir landslides based on a Bayesian optimized random forest-combined Kalman filter. <i>Environmental Earth Sciences</i> , <b>2022</b> , 81, 1	2.9	4
108	Performance monitoring of a curved shield tunnel during adjacent excavations using a fiber optic nervous sensing system. <i>Tunnelling and Underground Space Technology</i> , <b>2022</b> , 124, 104483	5.7	1
107	Fiber Bragg GratingBased Flume Test to Study the Initiation of Landslide-Debris Flows Induced by Concentrated Runoff. <i>Geotechnical Testing Journal</i> , <b>2021</b> , 44, 20190290	1.3	9
106	Investigating the hydro-mechanical properties of calcareous sand foundations using distributed fiber optic sensing. <i>Engineering Geology</i> , <b>2021</b> , 295, 106440	6	4
105	Research review of large deformation monitoring of rock and soil. <i>IOP Conference Series: Earth and Environmental Science</i> , <b>2021</b> , 861, 042030	0.3	1
104	Influence of biochar from animal and plant origin on the compressive strength characteristics of degraded landfill surface soils. <i>International Journal of Damage Mechanics</i> , <b>2021</b> , 30, 484-501	3	15
103	PSO-SVM-based deep displacement prediction of Majiagou landslide considering the deformation hysteresis effect. <i>Landslides</i> , <b>2021</b> , 18, 179-193	6.6	20
102	Monitoring of tunnel excavation based on the fiber Bragg grating sensing technology. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2021</b> , 169, 108334	4.6	15
101	Passive distributed temperature sensing (PDTs)-based moisture content estimation in agricultural soils under different vegetative canopies. <i>Paddy and Water Environment</i> , <b>2021</b> , 19, 383	1.6	3

100	DFOS Applications to Geo-Engineering Monitoring. <i>Photonic Sensors</i> , <b>2021</b> , 11, 158-186	2.3	7
99	Influence of soil density on gas permeability and water retention in soils amended with in-house produced biochar. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , <b>2021</b> ,	5.3	2
98	Landslide displacement prediction based on a novel hybrid model and convolutional neural network considering time-varying factors. <i>Bulletin of Engineering Geology and the Environment</i> , <b>2021</b> , 80, 7403	4	4
97	Feasibility study on ice content measurement of frozen soil using actively heated FBG sensors. <i>Cold Regions Science and Technology</i> , <b>2021</b> , 189, 103332	3.8	8
96	Investigating temperature and moisture profiles of seasonally frozen soil under different land covers using actively heated fiber Bragg grating sensors. <i>Engineering Geology</i> , <b>2021</b> , 290, 106197	6	12
95	Randomly generating three-dimensional realistic schistous sand particles using deep learning: Variational autoencoder implementation. <i>Engineering Geology</i> , <b>2021</b> , 291, 106235	6	2
94	Performance evaluation of buried pipe under loading using fiber Bragg grating and particle image velocimetry techniques. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2021</b> , 186, 110086	4.6	5
93	Field monitoring of bearing capacity efficiency of permeable pipe pile in clayey soil: A comparative study. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2021</b> , 186, 110151	4.6	2
92	Fiber Optic Monitoring and Forecasting of Reservoir Landslides. <i>Lecture Notes in Civil Engineering</i> , <b>2021</b> , 1-13	0.3	
91	Modeling dynamic responses of a cross-river road shield tunnel under stochastic vehicle loads. <i>Tunnelling and Underground Space Technology</i> , <b>2020</b> , 102, 103432	5.7	3
90	Toward Distributed Fiber-Optic Sensing of Subsurface Deformation: A Theoretical Quantification of Ground-Borehole-Cable Interaction. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2020</b> , 125, e2019JB018878	3.6	16
89	A machine learning method for inclinometer lateral deflection calculation based on distributed strain sensing technology. <i>Bulletin of Engineering Geology and the Environment</i> , <b>2020</b> , 79, 3383-3401	4	12
88	Experimental Investigation of Consolidation Properties of Nano-Bentonite Mixed Clayey Soil. <i>Sustainability</i> , <b>2020</b> , 12, 459	3.6	13
87	Influence of in-house produced biochar on geotechnical properties of expansive clay. <i>IOP Conference Series: Earth and Environmental Science</i> , <b>2020</b> , 463, 012072	0.3	1
86	Gas permeability in soil amended with biochar at different compaction states. <i>IOP Conference Series: Earth and Environmental Science</i> , <b>2020</b> , 463, 012073	0.3	12
85	Modeling Dependence Among Suction, Moisture, and Cracking of a Novel Biochar Synthesized from Weed Species. <i>Advances in Civil Engineering Materials</i> , <b>2020</b> , 9, 20180092	0.7	4
84	Understanding Soil Surface Water Content Using Light Reflection Theory: A Novel Color Analysis Technique Considering Variability in Light Intensity. <i>Journal of Testing and Evaluation</i> , <b>2020</b> , 48, 20180320	1	5
83	Mechanism of biochar soil pore gas-water interaction: gas properties of biochar-amended sandy soil at different degrees of compaction using KNN modeling. <i>Acta Geophysica</i> , <b>2020</b> , 68, 207-217	2.2	48

82	Strain integration-based soil shear displacement measurement using high-resolution strain sensing technology. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2020</b> , 166, 108210	4.6	21
81	Assessment of hydro-mechanical properties of biochar-amended soil sourced from two contrasting feedstock. <i>Biomass Conversion and Biorefinery</i> , <b>2020</b> , 1	2.3	3
80	Evaluating Suitability of Geomaterials-Amended Soil for Landfill Liner: A Comparative Study. <i>Journal of Hazardous, Toxic, and Radioactive Waste</i> , <b>2020</b> , 24, 04020052	2.3	
79	Quantifying progressive failure of micro-anchored fiber optic cable and interface via high-resolution distributed strain sensing. <i>Canadian Geotechnical Journal</i> , <b>2020</b> , 57, 871-881	3.2	13
78	Characterization of Soil Moisture Distribution and Movement Under the Influence of Watering-dewatering Using AHFO and BOTDA Technologies. <i>Environmental and Engineering Geoscience</i> , <b>2019</b> , 25, 189-202	0.7	2
77	Feasibility Investigation of Improving the Modified GreenAmpt Model for Treatment of Horizontal Infiltration in Soil. <i>Water (Switzerland)</i> , <b>2019</b> , 11, 645	3	5
76	An Fiber Bragg Grating-Based Monitoring System for Slope Deformation Studies in Geotechnical Centrifuges. <i>Sensors</i> , <b>2019</b> , 19,	3.8	7
75	Fast vibration characteristics analysis of an underwater shield tunnel using the accelerometer network enhanced by edge computing. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2019</b> , 141, 52-61	4.6	9
74	Forecasting slope deformation field using correlated grey model updated with time correction factor and background value optimization. <i>Engineering Geology</i> , <b>2019</b> , 260, 105215	6	26
73	Assessment of Flexural and Splitting Strength of Fiber-Reinforced Concrete Using Artificial Intelligence. <i>Advances in Civil Engineering Materials</i> , <b>2019</b> , 8, 20190030	0.7	2
72	Feasibility Study of Anchored Fiber-Optic Strain-Sensing Arrays for Monitoring Soil Deformation beneath Model Foundation. <i>Geotechnical Testing Journal</i> , <b>2019</b> , 42, 20170321	1.3	5
71	An Artificial Intelligence Model for Computing Optimum Fly Ash Content for Structural-Grade Concrete. <i>Advances in Civil Engineering Materials</i> , <b>2019</b> , 8, 20180079	0.7	1
70	A field study on the application of distributed temperature sensing technology in thermal response tests for borehole heat exchangers. <i>Bulletin of Engineering Geology and the Environment</i> , <b>2019</b> , 78, 3901-3915	4.3	10
69	Investigation of the influence of soil moisture on thermal response tests using active distributed temperature sensing (ADTS) technology. <i>Energy and Buildings</i> , <b>2018</b> , 173, 239-251	7	26
68	A kinematic method for calculating shear displacements of landslides using distributed fiber optic strain measurements. <i>Engineering Geology</i> , <b>2018</b> , 234, 83-96	6	31
67	An improved distributed sensing method for monitoring soil moisture profile using heated carbon fibers. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2018</b> , 123, 175-184	4.6	26
66	Monitoring the behavior of segment joints in a shield tunnel using distributed fiber optic sensors. <i>Structural Control and Health Monitoring</i> , <b>2018</b> , 25, e2056	4.5	37
65	A long term evaluation of circular mat foundations on clay deposits using fractional derivatives. <i>Computers and Geotechnics</i> , <b>2018</b> , 94, 72-82	4.4	6

64	A Fiber Bragg-Grating-Based Miniature Sensor for the Fast Detection of Soil Moisture Profiles in Highway Slopes and Subgrades. <i>Sensors</i> , <b>2018</b> , 18,	3.8	18
63	Stochastic modelling of relative water permeability in vegetative soils with implications on stability of bioengineered slope. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2018</b> , 32, 3541-3559	3.5	1
62	A soil moisture estimation method using actively heated fiber Bragg grating sensors. <i>Engineering Geology</i> , <b>2018</b> , 242, 142-149	6	22
61	Mechanical properties and energy conversion of 3D close-packed lattice model for brittle rocks. <i>Computers and Geosciences</i> , <b>2017</b> , 103, 12-20	4.5	32
60	Analysis on shear wave velocity structure of a gravel landslide based on dual-source surface wave method. <i>Landslides</i> , <b>2017</b> , 14, 1127-1137	6.6	16
59	Prediction of one-dimensional compression behavior of Nansha clay using fractional derivatives. <i>Marine Georesources and Geotechnology</i> , <b>2017</b> , 35, 688-697	2.2	29
58	Soil strain-field and stability analysis of cut slope based on optical fiber measurement. <i>Bulletin of Engineering Geology and the Environment</i> , <b>2017</b> , 76, 937-946	4	10
57	Analysis of the strain process of soil slope model during infiltration using BOTDA. <i>Bulletin of Engineering Geology and the Environment</i> , <b>2017</b> , 76, 947-959	4	10
56	FBG-Based Monitoring of Geohazards: Current Status and Trends. <i>Sensors</i> , <b>2017</b> , 17,	3.8	68
55	Deformation Monitoring of Metro Tunnel with a New Ultrasonic-Based System. <i>Sensors</i> , <b>2017</b> , 17,	3.8	13
54	Role of the interface between distributed fibre optic strain sensor and soil in ground deformation measurement. <i>Scientific Reports</i> , <b>2016</b> , 6, 36469	4.9	24
53	Performance evaluation of two types of heated cables for distributed temperature sensing-based measurement of soil moisture content. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , <b>2016</b> , 8, 212-217	5.3	13
52	Stability analysis of an ancient landslide considering shear strength reduction behavior of slip zone soil. <i>Landslides</i> , <b>2016</b> , 13, 173-181	6.6	15
51	Performance evaluation of soil-embedded plastic optical fiber sensors for geotechnical monitoring. <i>Smart Structures and Systems</i> , <b>2016</b> , 17, 297-311		4
50	Fractional calculus-based compression modeling of soft clay. <i>Japanese Geotechnical Society Special Publication</i> , <b>2016</b> , 2, 417-420	0.2	1
49	Smart Sensing Technologies and Their Applications in Civil Infrastructures 2016. <i>Journal of Sensors</i> , <b>2016</b> , 2016, 1-2	2	4
48	Feasibility study of strain based stability evaluation of locally loaded slopes: Insights from physical and numerical modeling. <i>Engineering Geology</i> , <b>2016</b> , 208, 39-50	6	32
47	Development and application of a fixed-point fiber-optic sensing cable for ground fissure monitoring. <i>Journal of Civil Structural Health Monitoring</i> , <b>2016</b> , 6, 715-724	2.9	11

46	A quantitative monitoring technology for seepage in slopes using DTS. <i>Engineering Geology</i> , <b>2015</b> , 186, 100-104	6	26
45	Experimental study on pullout performance of sensing optical fibers in compacted sand. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2015</b> , 73, 284-294	4.6	9
44	Introduction to an FBG-based inclinometer and its application to landslide monitoring. <i>Journal of Civil Structural Health Monitoring</i> , <b>2015</b> , 5, 645-653	2.9	29
43	A distributed measurement method for in-situ soil moisture content by using carbon-fiber heated cable. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , <b>2015</b> , 7, 700-707	5.3	30
42	Experimental investigation of pavement behavior after embankment widening using a fiber optic sensor network. <i>Structural Health Monitoring</i> , <b>2015</b> , 14, 46-56	4.4	27
41	Experimental Investigation of Pullout Behavior of Fiber-Reinforced Polymer Reinforcements in Sand. <i>Journal of Composites for Construction</i> , <b>2015</b> , 19, 04014062	3.3	10
40	Investigation of the evolutionary process of a reinforced model slope using a fiber-optic monitoring network. <i>Engineering Geology</i> , <b>2015</b> , 186, 34-43	6	90
39	Time-dependent pullout behavior of glass fiber reinforced polymer (GFRP) soil nail in sand. <i>Canadian Geotechnical Journal</i> , <b>2015</b> , 52, 671-681	3.2	23
38	A field study on distributed fiber optic deformation monitoring of overlying strata during coal mining. <i>Journal of Civil Structural Health Monitoring</i> , <b>2015</b> , 5, 553-562	2.9	18
37	Closure to Experimental Investigation of Pullout Behavior of Fiber-Reinforced Polymer Reinforcements in Sand by Cheng-Cheng Zhang, Hong-Hu Zhu, Bin Shi, Fang-Dong Wu, and Jian-Hua Yin. <i>Journal of Composites for Construction</i> , <b>2015</b> , 19, 07015005	3.3	
36	Deformation Monitoring of Geomechanical Model Test and Its Application in Overall Stability Analysis of a High Arch Dam. <i>Journal of Sensors</i> , <b>2015</b> , 2015, 1-12	2	5
35	Smart Sensing Technologies and Their Applications in Civil Infrastructures. <i>Journal of Sensors</i> , <b>2015</b> , 2015, 1-1	2	3
34	Quantitative Evaluation of Optical Fiber/Soil Interfacial Behavior and Its Implications for Sensing Fiber Selection. <i>IEEE Sensors Journal</i> , <b>2015</b> , 15, 3059-3067	4	11
33	Evaluation of feature- and pixel-based methods for deflection measurements in temporary structure monitoring. <i>Journal of Civil Structural Health Monitoring</i> , <b>2015</b> , 5, 615-628	2.9	2
32	Probabilistic prediction of rainfall-induced slope failure using a mechanics-based model. <i>Engineering Geology</i> , <b>2014</b> , 168, 129-140	6	68
31	Modeling the pullout behavior of short fiber in reinforced soil. <i>Geotextiles and Geomembranes</i> , <b>2014</b> , 42, 329-338	5.2	38
30	Theoretical investigation of interaction between a rectangular plate and fractional viscoelastic foundation. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , <b>2014</b> , 6, 373-379	5.3	14
29	Distributed fiber optic monitoring and stability analysis of a model slope under surcharge loading. <i>Journal of Mountain Science</i> , <b>2014</b> , 11, 979-989	2.1	63

28	Fiber Bragg grating-based performance monitoring of a slope model subjected to seepage. <i>Smart Materials and Structures</i> , <b>2014</b> , 23, 095027	3-4	50
27	Interfacial characterization of soil-embedded optical fiber for ground deformation measurement. <i>Smart Materials and Structures</i> , <b>2014</b> , 23, 095022	3-4	33
26	Open image in new windowLaboratory Studies on Slope Stability Monitoring Using Distributed Fiber-Optic Sensing Technologies <b>2014</b> , 625-629		1
25	Evaluations of load-deformation behavior of soil nail using hyperbolic pullout model. <i>Geomechanics and Engineering</i> , <b>2014</b> , 6, 277-292		16
24	Experimental and numerical investigation of uplift behavior of umbrella-shaped ground anchor. <i>Geomechanics and Engineering</i> , <b>2014</b> , 7, 165-181		10
23	Bending of a rectangular plate resting on a fractionalized Zener foundation. <i>Structural Engineering and Mechanics</i> , <b>2014</b> , 52, 1069-1084		7
22	Feasibility study on corrosion monitoring of a concrete column with central rebar using BOTDR. <i>Smart Structures and Systems</i> , <b>2014</b> , 13, 41-53		22
21	Resonance magnetoelectric effect in radially polarized long cylindrical composite structures. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 214105	2-5	14
20	A new flexible FBG sensing beam for measuring dynamic lateral displacements of soil in a shaking table test. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2013</b> , 46, 200-209	4-6	35
19	Performance Monitoring of a Glass Fiber-Reinforced Polymer Bar Soil Nail during Laboratory Pullout Test Using FBG Sensing Technology. <i>International Journal of Geomechanics</i> , <b>2013</b> , 13, 467-472	3-1	23
18	Slope Stability Analysis Based on Measured Strains along Soil Nails Using FBG Sensing Technology. <i>Mathematical Problems in Engineering</i> , <b>2013</b> , 2013, 1-5	1-1	7
17	Monitoring of lateral displacements of a slope using a series of special fibre Bragg grating-based in-place inclinometers. <i>Measurement Science and Technology</i> , <b>2012</b> , 23, 025007	2	57
16	Settlement analysis of viscoelastic foundation under vertical line load using a fractional Kelvin-Voigt model. <i>Geomechanics and Engineering</i> , <b>2012</b> , 4, 67-78		34
15	An optical fibre monitoring system for evaluating the performance of a soil nailed slope. <i>Smart Structures and Systems</i> , <b>2012</b> , 9, 393-410		78
14	Field Pullout Testing and Performance Evaluation of GFRP Soil Nails. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2011</b> , 137, 633-642	3-4	74
13	Monitoring and warning of landslides and debris flows using an optical fiber sensor technology. <i>Journal of Mountain Science</i> , <b>2011</b> , 8, 728-738	2-1	54
12	Large-scale geomechanical model testing of an underground cavern group in a true three-dimensional (3-D) stress state. <i>Canadian Geotechnical Journal</i> , <b>2010</b> , 47, 935-946	3-2	69
11	Monitoring Internal Displacements of a Model Dam Using FBG Sensing Bars. <i>Advances in Structural Engineering</i> , <b>2010</b> , 13, 249-261	1-9	49



10	Comparative Study on the Elongation Measurement of a Soil Nail Using Optical Lower Coherence Interferometry Method and FBG Method. <i>Advances in Structural Engineering</i> , <b>2010</b> , 13, 309-319	1.9	16
9	Physical modelling of sliding failure of concrete gravity dam under overloading condition. <i>Geomechanics and Engineering</i> , <b>2010</b> , 2, 89-106		15
8	Monitoring of soil nailed slopes and dams using innovative technologies <b>2008</b> , 1361-1366		2
7	Monitoring Water Infiltration of Capillary Barrier with Actively Heated Fiber Bragg Gratings. <i>Environmental Geotechnics</i> , 1-16	1.2	0
6	Exploring efficiency of biochar in enhancing water retention in soils with varying grain size distributions using ANN technique. <i>Acta Geotechnica</i> , 1	4.9	12
5	Correlations of SMR-Qslope Data in Stability Classification of Discontinuous Rock Slope: A Modified Relationship Considering the Iranian Data. <i>Geotechnical and Geological Engineering</i> , 1	1.5	0
4	Exploring Efficiency of Biochar in Enhancing Water Retention in Soils with Varying Grain Size Distributions using ANN Technique		2
3	A field test to investigate spatiotemporal distribution of soil moisture under different cropland covers in the semiarid Loess Plateau of China. <i>Paddy and Water Environment</i> , 1	1.6	0
2	Bearing performance of steel pipe pile in multilayered marine soil using fiber optic technique: A case study. <i>Marine Georesources and Geotechnology</i> , 1-17	2.2	0
1	Subsurface Multi-Physical Monitoring of a Reservoir Landslide with the Fiber-Optic Nerve System. <i>Geophysical Research Letters</i> ,	4.9	0