CURRICULUM VITAE

Hannah, Wan-Huan ZHOU, Professor

Ph.D. MAGE. M. ASCE. M. HKSTAM. M. HKGES.

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ACADEMIC BACKGROUND

2008 Ph.D. in Geotechnical Engineering, Department of Civil & Structural Engineering, The Hong Kong Polytechnic University, Hong Kong
Supervisor: Chair Professor Jian-Hua Yin

2005 MSc. in Geotechnical Engineering, Zhejiang University, China
Supervisor: Prof. Renpeng Chen, Prof. Yunmin Chen

2002 B.Eng in Civil Engineering, Zhejiang University, China
Minor diploma on "High-tech Innovation Management" Chu Kechen Honors College, Zhejiang University

WORKING EXPERIENCE

08/2021 ~ Present: **Professor**
Faculty of Science and Technology, University of Macau, Macau

09/2015 ~ 08/2021: **Associate Professor**
Faculty of Science and Technology, University of Macau, Macau

09/2009 ~ 08/2015: **Assistant Professor**
Faculty of Science and Technology, University of Macau, Macau

12/2008 – 06/2009: **Lecturer**
Department of Civil and Structural Engineering,
The Hong Kong Polytechnic University, Hong Kong

HONORS AND AWARDS

May 2011	Award for Excellent Paper 2011 to **Wan-Huan Zhou** Presented by **International Association for Computer Methods and Advances in Geomechanics (IACMAG)**
Oct 2011	2011 R. M. Quigley Award – Honourable Mention for paper published in Canadian Geotechnical Journal in 2010. Presented by **Canadian Geotechnical Society**, for paper entitled "*New mixed boundary, true triaxial loading device for testing three-dimensional stress–strain–strength behaviour of geomaterials*" by Jian-Hua Yin, Chun-Man Cheng, Md. Kumruzzaman, and **Wan-Huan Zhou**.

PROFESSIONAL MEMBERSHIPS

Vice Director	Macau Association of Geotechnical Engineering (**MAGE**)
Member-at-Large	Hong Kong Society of Theoretical and Applied Mechanics **(HKSTAM)**
Member	Hong Kong Geotechnical Society (**HKGES**)
Member	American Society of Civil Engineers (**ASCE**), Geo-Institute
Member	International Society for Soil Mechanics and Foundation Engineering (**ISSMGE**)
Nominated Member	**TC** 202 Transportation Geotechnics (ISSMGE)
Corresponding Member	**TC** 204 Transportation Geotechnics (ISSMGE)
Nominated Member	**TC** 219 System Performance of Geotechnical Structures (ISSMGE)
Committee Member	Risk and Insurance Research Brach of China Civil Engineering Society **(CCES)**
Nominated Member	11th Committee of Engineering Geology Professional Committee, Geological Society of China
Member	6th Committee of Chinese Association of Young Scientists and Technologists

PROFESSIONAL SERVICES

General Chair	**IS-Macau 2024** - The 11th International Symposium of geotechnical aspects of underground construction in soft ground, June 14-17, 2024

Associate Editor	**International Journal of Geomechanics**, Since 2021
Editorial Board Member	**Canadian Geotechnical Journal**, Since 2021
Editorial Board Member	**Biogeotechnics,** Since 2023
Early Career Editorial Board Members	**Transportation Geotechnics**, Since 2021
Scientific Editor	**Journal of Mountain Science**, Since 2020

Keynote/Invited Speech

Keynote Speaker	"Practice of Bayesian Probability Theory in Geotechnical Engineering", The 1st International Yuelu Symposium on "Geotechnical and Underground Engineering", Hunan University, Changsha, China, 18 June 2024.
Invited Speaker	"Long-term deformation prediction and evaluation of deep-buried submarine tunnel", The 7th National Geotechnical Engineering Symposium on Islands and Reefs, Sun Yat-Sen University, Zhuhai, 10-12 May, 2024.
Keynote Speaker	"Physics-informed Machine Learning for Long-term Settlement Prediction of HZMB Immersed Tunnel", The 27th Annual Conference of HKSTAM 2024/ The 19th Jiangsu – Hong Kong Forum on Mechanics and Its Application, The Hong Kong Polytechnic University, Hong Kong, 4 May, 2024.
Invited Speaker	"Long-term settlement prediction of HZMB immersed tunnel", Hunan University, Hunan, 19 April, 2024.
Invited Speaker	"A flexible and generalizable method for predicting subsea immersed tunnel settlement", International Symposium on Innovations in Geotechnical Engineering towards Sustainability (IGES2023), The Hong Kong Polytechnic University, Hong Kong, 30 Nov-04 Dec, 2023.
Invited Speaker	"Challenges and Innovations in the Long-term Safe Operation and Maintenance of the Hong Kong-Zhuhai-Macau Bridge Immersed Tunnel", Tongji University, Shanghai, China, 9 November 2023.
Keynote Speaker	"Physics-informed machine learning for settlement prediction of immersed tunnels", 16th International Conference of the International Association for Computer Methods and Advances in Geomechanics, Politecnico di Torino, Italy, September 1, 2022.
Invited Speaker	"Urban Underground Space and Big Data", UM Scholar

	Research Forum, University of Macau, Macau, April 22, 2022.
Invited Speaker	"Deformation Analysis of Immersed Tunnel", The 1st Macao Conference on Smart City Technologies - Towards Smart Guangdong-Hong Kong-Macao Greater Bay Area. University of Macau, Macau. December 13, 2021.
Invited Speaker	"Deformation Analysis of Immersed Tunnel", International Workshop of Smart Infrastructure Development towards Smart City, China Shantou & Hong Kong. Nov 20, 2021,
Invited Speaker	"Micro to Macro Characteristics of Interface Shearing Behavior between Granular Soil and Structure" Tianjin University, Tianjin，China, October 9, 2020.
Keynote Speaker	"Micro to Macro Characteristics of Interface Shearing Behavior between Granular Soil and Structure", The 17th Chinese Society for Rock Mechanics and Engineering (CSRME) annual conference, Beijing, China, October 25, 2020.
Invited speaker	"Uncertainty analysis in geotechnical engineering", the 2nd Zhuhai Civil Engineering forum, Zhuhai, China, November 16, 2019.
Keynote speaker	"Creep model selection for soft soils", 2nd International Symposium on Marine Engineering Geology, ISMEG2019, Dailian, China, October 19, 2019.
Keynote speaker	"Sand-Structure interface shearing characteristics and multi-scale analysis", The 1st Academic Conference on Calculation and Simulation Technologies for Civil Engineering, Wuhan, China, May 25, 2019.
Invited speaker	"Silty sand – structure interface shearing behavior", Changsha, China, November 10, 2018.
Invited speaker	"Engineering properties of Pb contaminated soil after nZVI treatment", "Beijing-Tianjin-Hebei-Hong Kong, Macao and Taiwan" Energy Green Development and Low-Carbon City Construction Forum, Beijing, China, August 05, 2018.
Keynote speaker	"An efficient probabilistic back-analysis method for braced excavations", 2nd International Symposium on Asia Urban GeoEngineering (2nd ISAUG), Changsha, China, November 26, 2017.
Invited speaker	"On the interface shearing behavior between granular soil and artificial rough surfaces", 7th International Symposium on Environmental Vibration and Transportation Geodynamics (ISEV2016), Hangzhou, China, October 30, 2016.

RESEARCH

Research Grants

1. **Principal Investigator:** "Long-term deformation of shield tunnels crossing land-sea transitional zones and development of an intelligent health monitoring platform", Science and Technology Development Fund (FDCT), Macau SAR. Grant No.: 0056/2023/RIB2, Budget: 1,915,000 MOP, Duration: 16/01/2024-15/01/2027, Status: Ongoing.

2. **Principal Investigator:** "High-performance sensing and monitoring technology and platform for safe operation of urban underground pipelines", Department of Science and Technology of Guangdong Province. Grant No.: 2022A0505030019, Budget: 550,000 RMB。Duration: 01/09/2022-31/08/2025, Status: Ongoing.

3. **Principal Investigator:** "Safety monitoring, Smart IOT technology, Instrument and equipment，and Industrialization for Urban Infrastructure", University of Macau-Huafa Group Joint Laboratory, Budget: 3,809,600 RMB, Duration: 16/03/2022-15/03/2025, Status: Ongoing.

4. **Principal Investigator:** "Innovative Optical Fiber Sensors and Monitoring System for Oceanic Research", The Center for Ocean Research in Hong Kong and Macau. Grant No.: CORE, Budget: 309,000 MOP, Duration: 01/06/2023-31/05/2024, Status: Completed.

5. **Principal Investigator: "**Key technologies for the development of an intelligent platform for safety operation of urban underground rail transportation and pilot applications", FDCT-GDST Joint Project, Grant No. 0057/2020/AGJ, Budget: 1,000,000 MOP, Duration: 01/03/2021-28/02/2023, Status: Completed.

6. **Principal Investigator: "**Disaster prevention in geotechnical engineering", 2020 Excellent Young Scientists Fund (Hong Kong and Macao) from NSFC, Grant No. 52022001, Budget: 1,200,000 RMB, Duration: 01/01/2021-31/12/2023, Status: Completed.

7. **Principal Investigator: "**Seepage and Durability of Deep Buried Immersed Tunnel in Marine Backfill and Water Environment", NSFC-FDCT Joint Project, Project Reference Number: 0026/2020/AFJ, Budget: 1,907,500 MOP, Period: 01/09/2020-31/08/2023, Status: Completed.

8. **Principal Investigator: "**Development of intelligent optical fiber sensors for building safety monitoring", FDCT Smart City Applications and Solutions of Macao, Project Reference Number: 0025/2020/ASC, Budget: 350,000 MOP, Period: 04/01/2021-03/01/2022, Completed.

9. **Principal Investigator (UM):** "Integrated application of intelligent operation and maintenance technology for Hong Kong-Zhuhai-Macao Bridge", Ministry of Science and Technology (MOST), China. Grant No.: 2019YFB1600700, Budget: 4,002,500 MOP, Duration: 01/12/2019-30/11/2023, Status: Completed.

10. **Principal Investigator (UM):** "Intelligent safety monitoring and emergency management of major cross-sea traffic cluster projects", Department of Science and Technology of Guangdong Province. Grant No.: 2019B111106001, Duration: 01/2020-12/2022, Budget: 1,860,000 RMB, Status: Completed.

11. **Principal Investigator:** "Research and Development of Advanced Optical Fiber Sensing Technology for Marine Environment", The Center for Ocean Research in Hong Kong and Macau. Grant No.: CORE, Duration: 01/04/2022-31/03/2023, Status: Completed.

12. **Principal Investigator:** "Study of face stability technology for slurry shield tunneling", Science and Technology Development Fund (FDCT), Macau SAR. Grant No.: FDCT/0035/2019/A1, Budget: 2,180,000 MOP, Duration: 07/2019-06/2022, Status: Completed.

13. **Principal Investigator:** "Characteristics and micro-mechanism of the shearing behavior between silty sand and 3D complex rough interfaces", Science and Technology Development Fund (FDCT) of Macau SAR. Grant No.: FDCT/193/2017/A3, Budget: 1,744,000 MOP, Duration: 25/05/2018-24/05/2021, Status: Completed.

14. **Principal Investigator:** "Modeling the Shearing Behavior of Soil-Structural Interface with Micromechanics Approach", Science and Technology Development Fund (FDCT) of Macau SAR. Grant No.: FDCT/125/2014/A3, Amount: Budget: MOP 2,871,500, Duration: 18/06/2015-17/06/2018, Completed.

15. **Principal Investigator:** "The Load Transfer and Deformation Mechanism of Geosynthetic Reinforced Pile Supported Embankment", Science and Technology Development Fund (FDCT) of Macau SAR. Grant No.: FDCT/011/2013/A1, Status: Completed. Amount: Budget: MOP 1,439,850. Duration: 03/10/2013-02/10/2016, Completed.

16. **Principal Investigator:** "Intelligent monitoring for assessment of soil properties in soil-vegetation-atmosphere continuum", Research Committee of University of Macau. Grant No.: MYRG2018-00173-FST, Budget: 2,100,000 MOP, Duration: 01/01/2019-31/12/2021, Completed.

17. **Principal Investigator:** "Multi-scale modeling on the shearing behavior of soil-structural interface", Research Committee of University of Macau. Grant No.: MYRG2017-00198-FST, Budget: 2,100,000 MOP, Duration: 01/01/2018-31/12/2020, Completed.

18. **Principal Investigator**, "Shearing Behavior and Multiscale Constitutive Modeling of Silty Sand-Structure Interface", NSFC Young Scientists Fund, Grant No. 51508585, Budget: 200,000 RMB, Duration: 2016.01.01-2018.12.31, Completed.

19. **Principal Investigator:** "Field Monitoring and Numerical Investigation on Ground Settlements Induced by Root Water Uptake of Vegetation", Research

Committee of University of Macau. Grant No.: MYRG2015-00112-FST, Budget: 2,044,000 MOP, Duration: June 2014 – May 2017, Completed.

20. **Principal Investigator:** "A Real-time Monitoring and Safety Warning System for Ground Excavation based on Optical Fiber Sensing Technology", Research Committee of University of Macau. Grant No.: MYRG2014-00175-FST, Budget: 1,350,000 MOP, Duration: June 2014 – May 2017, Completed.

21. **Principal Investigator:** "Mechanical Behavior of Soil-Structure Interface in Unsaturated Soils", Research Committee of University of Macau. Grant No.: MYRG067(Y1-L2)-FST12-ZWH, Duration: June 2012 - May 2015, Completed.

22. **Principal Investigator:** "Hydraulic Conductivity and Correlations of Completely Decomposed Granite Soil", Research Committee of University of Macau. Grant No.: MYRG189(Y1-L3)-FST11-ZWH, Duration: June 2011 - May 2014, Completed.

Publications:

Book

1. **Wan-Huan Zhou**, Zheng Guan and Xue Li (2024) Geotechnical Aspects of Underground Construction in Soft Ground, Taylor & Francis, ISBN: 9781040155950, 607 pages.
2. **Wan-Huan Zhou**, Zhen-Yu Yin (2022). Practice of Discrete Element Method in Soil-Structure Interface Modelling. Springer Nature, ISBN: 978-981-19-0046-4, 260 pages.
3. **Wan-Huan Zhou**, Zhen-Yu Yin, Ka-Veng Yuen (2021). Practice of Bayesian Probability Theory in Geotechnical Engineering. Springer Singapore, ISBN: 978-981-15-9104-4, 324 pages.

Journal paper (UM Student Name is underlined):

1. Jing, J.H., Guo, Y. X., Wang, T. & **Zhou, W. H.** (2024). A Femtosecond Fiber Bragg Grating-Based High-Sensitivity Ocean Pressure Sensor. IEEE Sensors Journal, 24 (10): 16102-16112.
2. Li, X., **Zhou, W. H.,** Liu. J. K., & Wang, C. (2024). Influence of non-plastic fines and density state on stress-dilatancy behavior of coral sand: an experimental investigation. Acta Geotechnica, https://doi.org/10.1007/511440-024-02286-z.
3. Zhou, Z., Thomas Man-Hoi Lok & **Zhou, W. H.** (2024). Surface wave inversion with unknown number of soil layers based on a hybrid learning procedure of deep learning and genetic algorithm. Earthquake Engineering and Engineering Vibration, 23(2): 345-358
4. He, S. Y., Tang, C., & **Zhou, W. H.** (2024). Settlement prediction of immersed tunnel considering time-dependent foundation modulus. Tunnelling and Underground Space Technology, 144, 105562.

5. Huang, H., Sun, Q., Xu, T., & **Zhou, W.** (2024). Mechanism analysis of foam penetration in EPB shield tunnelling with a focus on FER and soil particle size. Underground Space, 17, 170-187.
6. Tang, C., He, S., & **Zhou, W.** (2024). An efficient physics-guided bayesian framework for predicting ground settlement profile during excavations in clay. *Journal of Rock Mechanics and Geotechnical Engineering.*
7. He, S. Y., Tang, C., & **Zhou, W. H.** (2024). Settlement prediction of immersed tunnel considering time-dependent foundation modulus. Tunnelling and Underground Space Technology, 144, 105562.
8. He, S. Y., **Zhou, W. H.**, & Tang, C. (2024). Physics-Informed Neural Networks for Settlement Analysis of the Immersed Tunnel of the Hong Kong–Zhuhai–Macau Bridge. International Journal of Geomechanics, 24(1), 04023241.
9. He, S. Y., Kuok, S. C., Tang, C., & **Zhou, W. H.** (2023). Efficient Bayesian Model Updating for Settlement Prediction of the Immersed Tunnel of HZMB. Transportation Geotechnics, 101179.
10. Shen, P., Wei, S., Shi, H., Gao, L., & **Zhou, W. H.** (2023). Coastal flood risk and smart resilience evaluation under changing climate. Ocean-Land-Atmosphere Research.
11. Qin, S., Cheng, Y., & **Zhou, W. H.** (2023). State-of-the-art review on pressure infiltration behavior of bentonite slurry into saturated sand for TBM tunneling. Smart Construction and Sustainable Cities, 1(1), 14.
12. Tang, C., He, S. Y., Guan, Z., **Zhou, W. H.**, & Yin, Z. Y. (2023). Enhanced elastic beam model with BADS integrated for settlement assessment of immersed tunnels. Underground Space, 12, 79-88.
13. Yan, W., Shen, P., **Zhou, W. H.**, & Ma, G. (2023). A rigorous random field-based framework for 3D stratigraphic uncertainty modelling. Engineering Geology, 323, 107235.
14. Zhao, L. S., **Zhou, W. H.**, & Shen, S. L. (2023). Semianalytical Solution for Dissipation Process of Partially Saturated Soils Considering Nonsmooth Boundary and Stress Level. Journal of Engineering Mechanics, 149(9), 04023057.
15. Wang, D., Zhu, H., Zhou, G., Yu, W., Wang, B., & **Zhou, W. H.** (2023). Monitoring shear deformation of sliding zone via fiber Bragg grating and particle image velocimetry. Journal of Rock Mechanics and Geotechnical Engineering.
16. Cheng, Z., Kannangara, K. K. P. M., Su, L.J., **Zhou, W.H.** (2023). Mathematical model for approximating shield tunneling-induced surface settlement via multi-gene genetic programming. Acta Geotechnica, 0123456789.
17. Qin, S., Xu, T., **Zhou, W.H.**, & Bezuijen, A. (2023). Infiltration behaviour and microstructure of filter cake from sand-modified bentonite slurry. Transportation Geotechnics, 40, 100963.
18. Qin, S., **Zhou, W.H.**, & Xu, T. (2023). Effects of seawater on the infiltration behavior of bentonite slurry into sand. Construction and Building Materials, 371, 130759.
19. Yan, W., **Zhou, W.H.**, & Shen, P. (2023). An Uncertainty-driven Peak-integration (UP) Strategy for 3D Borehole Layout Planning. Computers and Geotechnics, 156, 105280.

20. Tang, C., He, S. Y., & **Zhou, W.H.** (2023). A beam on elastic foundation method for predicting deflection of braced excavations considering uncertainties. International Journal for Numerical and Analytical Methods in Geomechanics, 47(4), 533 – 548.

21. Yan, W., Shen, P., & **Zhou, W.H.** (2023). A hybrid physical data informed DNN in axial displacement prediction of immersed tunnel joint. Georisk : Assessment and Management of Risk for Engineered Systems and Geohazards, 1-12.

22. Cheng, Z. L., Kannangara, K. K. P. M., Su, L. J., **Zhou, W.H.**, & Tian, C. (2023). Physics-guided genetic programming for predicting field-monitored suction variation with effects of vegetation and atmosphere. Engineering Geology, 315, 107031.

23. Li, Y., **Zhou, W.H.**, & Shen, P. (2023). Flood risk assessment of loss of life for a coastal city under the compound effect of storm surge and rainfall. Urban Climate, 47, 101396.

24. Chen, W.B., **Zhou, W.H.**, & Yin, Z.Y. (2022). Recent Development on Macro – Micro Mechanism of Soil-Structure Interface Shearing Through DEM. Archives of Computational Methods in Engineering, 1-20.

25. Li, Y., Shen, P., Yan, Y., & **Zhou, W.H.** (2022). Flood risk assessment of artificial islands under compound rain-tide-wind effects during tropical cyclones. Journal of Hydrology, 615, 128736.

26. Tang, C., He, S.Y., & **Zhou, W.H.** (2022). Settlement-based framework for long-term serviceability assessment of immersed tunnels. Reliability Engineering & System Safety, 228, 108801.

27. Zhou, Z., Lok, T. M. H., **Zhou, W. H.**, & Zhao, L.S. (2022). An Analytical Solution for the Deformation of Soft Ground Reinforced by Columnar Inclusions under Equal Stress Conditions. Applied Sciences (Switzerland), 12 (22).

28. Qin, S., Xu T., Cheng Z.L., & **Zhou, W.H.** (2022). Analysis of spatiotemporal variations of excess pore water pressure during mechanized tunneling using genetic programming. Acta Geotechnica. 1-18.

29. Xu, T., **Zhou, W.H.**, Bezuijen, A., & Qin, S. (2022). Effects of sand and slurry characteristics on pressure infiltration of bentonite slurry into sand. Géotechnique, 0 (0), 1-34.

30. Cheng, Y., **Zhou, W.H.**, & Xu, T. (2022). Tunneling-induced settlement prediction using the hybrid feature selection method for feature optimization. Transportation Geotechnics, 36, 100808.

31. Lu, Z., **Zhou, W.H.**, Asce, M., & Yin, Z.Y. (2022). Effect of Viscosity on Slurry Infiltration in Granular Media. 22(9), 1-14.

32. Cheng, Z.L., **Zhou, W.H.**, and Tian, C., (2022) Multi-perspective analysis on rainfall-induced spatial response of soil suction in a vegetated soil. Journal of Rock Mechanics and Geotechnical Engineering. 14 (4), 1280-1291.

33. Kannangara K.K.P.M., **Zhou, W.H.**, Ding, Z., & Hong, Z.H. (2022) Investigation of feature contribution to shield tunneling-induced settlement using shapley additive explanations method. Journal of Rock Mechanics and Geotechnical Engineering. 14 (4), 1052-1063.

34. Li, Y., **Zhou, W.H.**, & Shen, P. (2022). Pedestrian danger assessment under rainstorm-induced flood disaster for an artificial island. International Journal of Disaster Risk Reduction, 78, 103133.

35. Lu, Z., **Zhou, W.H.**, Yin, Z.Y., & Yang, J. (2022). Numerical modeling of viscous slurry infiltration in sand. Computers and Geotechnics, 146, 104745.

36. Ding, Z., Zhao, L.S., **Zhou, W.H.**, & Bezuijen, A. (2022). Intelligent Prediction of Multi-Factor-Oriented Ground Settlement During TBM Tunneling in Soft Soil. Frontiers in Built Environment, 8.

37. Kannangara, K.K.P.M., Ding, Z., & **Zhou, W.H.** (2022). Surface settlements induced by twin tunneling in silty sand. Underground Space, 7 (1), 58-75

38. Ding, Z., He, S.Y., **Zhou, W.H.**, Xu, T., He, S.H., & Zhang, X. (2021). Analysis of ground deformation induced by shield tunneling considering the effects of muck discharge and grouting. Transportation Geotechnics, 30, 100629.

39. Xiong, L., Guo, Y.X., **Zhou, W.H.**, Chen, M., & Zhou, X.L. (2021). Fiber Bragg Grating-Based Three-Axis Vibration Sensor. IEEE Sensors Journal, 21(22), 25749 – 25757.

40. Wang, P., Yin, Z.Y., **Zhou, W.H.**, & Chen, W.B. (2021). Micro-mechanical analysis of soil – structure interface behavior under constant normal stiffness condition with DEM. Acta Geotechnica, 17(7), 2711 – 2733.

41. Guo, Y.X., **Zhou, W.H.**, Xiong, L., Zhou, X.L., & Li, L.T. (2021). A Fiber Bragg Grating Sensor for Positive and Negative Displacement Measurement. IEEE Sensors Journal, 21(19), 21564-21571.

42. Guo, Y.X., Xiong, L., Wu, H., **Zhou, W.H.**, Zhou, X.L., & Liu, H.H. (2021). A FBG Inclinometer for Simultaneous Measurement of Horizontal Deformation and Sudden Deformation. IEEE Transactions on Instrumentation and Measurement, 70.

43. Wang, A.Q., Hu, Y.Y., **Zhou, W.H.**, & Liu, X.W. (2021). Analysis of one-dimensional nonlinear consolidation of a saturated lumpy porous clay layer. Computers and Geotechnics, 140, 104458.

44. Qin, S., Xu, T., & **Zhou, W.H.** (2021). Predicting Pore-Water Pressure in Front of a TBM Using a Deep Learning Approach. International Journal of Geomechanics, 21(8), 04021140.

45. Chen, W.B., **Zhou, W.H.**, Sadowski, Ł., & Yin, Z.Y. (2021). Metaheuristic model for the interface shear strength between granular soil and structure considering surface morphology. Computers and Geotechnics, 135, 104141.

46. Cheng, Z.L., Yang, S., Zhao, L.S., Tian, C., & **Zhou, W.H.** (2021). Multivariate modeling of soil suction response to various rainfall by multi-gene genetic programing. Acta Geotechnica. 16 (11), 3601-3616.

47. Wang, H. L., **Zhou, W. H.**, Yin, Z. Y., & Jie, X. X. (2021). Closure to "Effect of Grain Size Distribution of Sandy Soil on Shearing Behaviors at Soil – Structure Interface" by Han-Lin Wang, Wan-Huan Zhou, Zhen-Yu Yin, and Xi-Xi Jie. Journal of Materials in Civil Engineering, 33(3), 07020009.

48. Chen W.B., Tao Xu, **W.H. Zhou** (2021) Microanalysis of smooth Geomembrane–Sand interface using FDM–DEM coupling simulation. Geotextiles and Geomembranes, Vol.49(1), 276-288.

49. Ding, P., Hu, Y., **Zhou, W.H.**, Liu, X., & Xu, R. (2020). An elastic-viscoplastic constitutive model incorporating shear dilation characteristic. Arabian Journal of Geosciences, 13(19).

50. Liu, X., Yang, B., Zhao, L. S., & **Zhou, W. H.** (2020). Experimental Investigation of Water Flow through Vesicular Fractures in Volcanic Rock. International Journal of Geomechanics, 20(10), 1–10.

51. He, S. H., Ding, Z., Xia, T. D., **Zhou, W. H.**, Gan, X. L., Chen, Y. Z., & Xia, F. (2020). Long-term behaviour and degradation of calcareous sand under cyclic loading. Engineering Geology, 276 (November 2019), 105756.

52. Chen, W. B., **Zhou, W. H.***, & dos Santos, J. A. (2020). Analysis of consistent soil–structure interface response in multi–directional shear tests by discrete element modeling. Transportation Geotechnics, 24(June), 100379.

53. Lyu H.M., **Zhou W.H.***, Shen S,L. *, Zhou A.N. (2020). Inundation risk assessment of metro system using AHP and TFN-AHP in Shenzhen, Sustainable Cities and Society, 56, 102103.

54. Jin, Y.F., Yin, Z.Y., **Zhou, W.H.**, Liu, X.F. (2020) Intelligent model selection with updating parameters during staged excavation using optimization method. Acta Geotechnica, 1-19.

55. Cheng, Z.L., **Zhou, W.H.***, Ding, Z., Guo, Y.X. (2020) Estimation of spatiotemporal response of rooted soil using a machine learning approach. Journal of Zhejiang University-SCIENCE A (Applied Physics & Engineering), 2020 21(6):462-477.

56. Liu, F., Yi, S., **Zhou, W.-H.***, Chen, Y.-Z., & Wong, M. H. (2020). Amendment additions and their potential effect on soil geotechnical properties: A perspective review. Critical Reviews in Environmental Science and Technology, 0(0), 1-42. https://doi.org/10.1080/10643389.2020.1729066

57. Cheng Z.L., **Zhou W.H.***, Garg A. (2020) Genetic programming model for estimating soil suction in shallow soil layers in the vicinity of a tree, Engineering Geology, 268:105506, Doi: 10.1016/j.enggeo.2020.105506

58. Jin, Y.F., Yin, Z.Y., **Zhou, W.H.**, & Horpibulsuk, S. (2019). Identifying parameters of advanced soil models using an enhanced transitional Markov chain Monte Carlo method. Acta Geotechnica, 14(6), 1925-1947.

59. Zhu, H. X., **Zhou, W. H.***, Jing, X. Y., & Yin, Z. Y. (2019). Observations on fabric evolution to a common micromechanical state at the soil-structure interface. International Journal for Numerical and Analytical Methods in Geomechanics, 43(15), 2449–2470. https://doi.org/10.1002/nag.2989

60. Jin, Y. F., Yin, Z. Y., **Zhou, W. H.**, & Shao, J. F. (2019). Bayesian model selection for sand with generalization ability evaluation. International Journal for Numerical and Analytical Methods in Geomechanics, 43(14), 2305-2327.

61. Lyu, H. M., Shen, S. L., Zhou, A., & **Zhou, W.H.** (2019). Data in flood risk assessment of metro systems in a subsiding environment using the interval FAHP – FCA approach. Data in Brief, 26, 104468.

62. Liu, F., Yi, S., Ma, H., Huang, J., Tang, Y., Qin, J., & **Zhou, W.H.** (2019). Risk assessment of groundwater environmental contamination: a case study of a karst site for the construction of a fossil power plant. Environmental Science and Pollution Research, 26(30), 30561-30574.

63. **Zhou, W.H.**, He, S.Y., Garg, A., & Yin, Z.Y. (2019) Field monitoring of suction in the vicinity of an urban tree: exploring termite infestation and the shading effects of tree canopy. Acta Geotechnica, 15. pp.1341-1361.

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