

Liu Yan

Previous Status: Research Fellow (Feb. 2011-Feb.2012)
Current Status: Lecturer, School of Civil Engineering, Beijing Jiaotong University.
Address: 3 Shangyuancun, Xizhimenwai, Beijing 100044, China;
Email: yliu.bjtu@gmail.com



Education:

- Ph.D., Geotechnical Engineering, Beijing Jiaotong University, Beijing, China, January 2011
- B.Eng., Civil Engineering, Beijing Jiaotong University, Beijing, China, July 2005

Working & Research Experiences

(1) From January 2013, Lecturer, School of Civil Engineering, Beijing Jiaotong University, Beijing, China

- ❖ Take charge of the project of National Natural Science Foundation of China: “Study on the constitutive modeling of unsaturated soils based on the generalized effective stress principle”, No. 51108022

(2) February 2012 to January 2013, Post Doctor, Institute of Rock and Soil Mechanics, Chinese Academic of Science, Wuhan, China

- ❖ Take charge of the project of Postdoctoral Science Foundation of China: “Considering gas effect in constitutive modeling of unsaturated soils”.

(3) February 2011 to February 2012, Research Fellow, School of Civil & Environmental Engineering, Nanyang Technological University, Singapore

- ❖ Participated in the project of “Reducing urban heat within JTC estates by installing subsurface water cooling systems”, funded by JTC Innovation Fund.

(4) September 2005 to January 2011, Ph.D. student, Geotechnical Engineering, Beijing Jiaotong University, Beijing, China

- ❖ Participated in the project of the National Basic Research Program of China (973 Project): “Fundamental Research of Urban Underground Engineering Safety”, No. 2010CB732100.

- ❖ Participated in the project of the National Natural Science Foundation of China: “Research on the properties of unsaturated soils based on the thermodynamics and the theory of porous media”, No. 50778013.
- ❖ Participated in the project of the National Natural Science Foundation of China: “Research on the constitutive model of unsaturated soils based on porous media theory”, No.51078019.
- ❖ Participated in the project of Beijing Natural Sciences Foundation: “Study on the properties of unsaturated soils in Beijing”, No.8082020.
- ❖ Participated in the project of Beijing Natural Sciences Foundation: “Study on the constitutive modelling of unsaturated soils in Beijing”, No. 8112024.

Research Interests

- Unsaturated soil mechanics
- Porous media theory and application
- Constitutive modeling and analytical methods in geotechnical engineering
- Environmental Systems Analysis

Honors & Awards

- 2009, Outstanding Student Scholarship, Beijing Jiaotong University
- 2008, Excellent Graduate Student, Beijing Jiaotong University
- 2007, Excellent Graduate Student, Beijing Jiaotong University
- 2006, Excellent Graduate Student, Beijing Jiaotong University
- 2005, Outstanding Graduates, Beijing Jiaotong University

Publications

Journal papers

- Liu Y, Zhao CG. (2011) Constitutive modeling for unsaturated soils considering gas hardening effect. Chinese Science Bulletin. 2011 Vol. 56 (16): 1739-1745.
- Liu Y, Cai GQ, Huang L. (2009). Discussion “on the use of the generalized effective stress in the constitutive modeling of unsaturated soils”. Computers and Geotechnics. 36(8): 1360-1361.
- Zhao C G, Liu Y, Gao F P. (2010). Work and energy equations and the principle of generalized effective stress for unsaturated soils. International Journal for Numerical and Analytical Methods in Geomechanics, 34: 920-936.
- Liu Y, Zhao C G. (2008). Hysteresis model for soil-water characteristic curves. Chinese Journal of Geotechnical Engineering, 30(3): 399-405, (in Chinese).
- Liu Y, Zhao C G, Wang J A, Fang Q. (2010). Study on the Prediction of SWCC from Basic Soil Properties. Journal of Beijing university of technology, 36(11): 1457-1464, (in Chinese).

- Zhao C G, Liu Y. (2009) Continuum porous medium soil mechanics and its application in constitutive relationship of unsaturated soils. Chinese Journal of Geotechnical Engineering, 31(9): 1324-1335, (in Chinese).
- Zhao C G, Liu Y. (2008). Research Progress of Constitutive Models for Unsaturated Soils. Journal of Beijing University of technology, 34(8): 820-829, (in Chinese).
- Cai G Q, Zhao C G, Liu Y. (2010). Temperature effects on soil-water characteristic curve of unsaturated soils. Rock and Soil Mechanics, 31(4):1055-1060, (in Chinese).
- Huang L, Zhao CG, Liu Y. 3-D Contaminant Migration Model with Consolidation Dependent Transport Coefficients. Acta Mechanical Sinica. (In press).

Conference papers

- Liu Y, Zhao C G. (2007). Modelling the hysteresis of soil-water characteristic curves. Proceedings of the 3rd Sino-Japan Geotechnical Symposium. Chongqing, China, pp. 383-392.
- Liu Y, Zhao C G. (2010). Gas effect in constitutive modelling of unsaturated soils. International conference on civil engineering. Baoding, China, pp. 600-604.
- Liu Y, Zhao C G. (2010). Study on gas phase in unsaturated soils. The fifth international conference on unsaturated soils (UNSAT 2010), Barcelona, Spain. Sep.
- Fang Q, Zhang DL, Liu Y. (2009) Study on support design for subsea tunnel. Proceedings of the International Symposium on Rock Mechanics. Hong Kong, No.182