# Resume of Lei Xi

## **Basic Information**



School: School of Civil, Architecture, and Environment Gender: Male Date of Birth: 199307 Lecturer Education: Ph.D of Transportation Engineering Tutor: Master degree Email: leixi@whut.edu.cn Interest of Road materials, Solid waste utilization, research: Geotechnics

### **Academic Background**

From September 2010 to July 2014, Wuhan University of Science and Technology, Bachelor's degree in Civil Engineering;

Title:

From September 2014 to July 2017, Chongqing Jiaotong University, Master's degree of Transportation Engineering:

From September 2017 to November 2021, Wuhan University of Technology, Ph.D of Transportation Engineering.

### **Representative Projects**

1. The 973 Program of the Ministry of Science and Technology of China (Project No. 2015CB180026). (Damage Mechanism of Paving Asphalt Mixtures Serving under All-Weather Conditions, Principal Researcher, 09/2017-12/2019)

2. Major Research and Development project of China Communications Construction Company (2016-ZJKJ-11). (Research and Application of Key Technologies in Sponge City, Principal Researcher, 09/2018-12/2019)

3. The Project of Ministry of Transport Construction Science and Technology (2014318J22120) (Efficient Material Utilization of Asphalt Pavements Using Surface Free Energy Theory, Assistant Researcher, 06/2017-8/2017).

4. Hubei Provincial Natural Science Foundation (Adhesion evaluation and dynamic modulus prediction for asphalt mixtures under humidity conditions based on Adhesion-Cohesion Energy index, Research leader, 06/2023-06/2023)

### **Representative Articles**

1. Lei Xi, Rong Luo. Use of Kramers-Kronig relations to construct the master curves of asphalt materials [J]. Materials and Structures, 2021, 54(1).

2. Lei Xi, Rong Luo, Hanqi Liu. Evaluating the influence of humidity on asphalt mixture performance by the flow number test [J]. Construction and Building Materials, 2021, 284(1):122754.

3. Hanqi Liu, Rong Luo, Lei Xi, Lvyang Hu. Development of Two-Step Secant Method to Interpret the Flow Number Test Data of Asphalt Mixtures[J]. Journal of materials in civil engineering, 2020, 32(4):04020027.1-04020027.11.

 Lei Xi, Rong Luo, Hanqi Liu. Effect of Relative Humidity on the Linear Viscoelastic Properties of Asphalt Mixtures [J]. Construction and Building Materials, 2021, 307(8).
Lei Xi, Rong Luo, Qiang Ma, Chongzhi Tu, Yasir Ibrahim Shah. An Improved Method to Establish Continuous Relaxation Spectrum of Asphalt Materials [J]. Construction and Building Materials, 2022, 354.

6. Chongzhi Tu, Lei Xi, Rong Luo, et al. Effect of water vapor concentration on adhesion between asphalt and aggregate [J]. Materials and Structures, 2022, 55(9): 1-15.

7. Qiang Ma, Haoliang Yin, Lei Xi, Henglin Xiao. Physical Model Test Investigation of Mechanical Properties of Double-pipe Culverts Subjected to Vertical Loading [J]. Journal of Pipeline Systems Engineering and Practice, 2023. (Accept)

8. Pangkun Zheng, Wentao Li, Qiang Ma, Lei Xi. Mechanical properties of phosphogypsum-soil stabilized by lime activated ground granulated blast-furnace slag [J]. Construction and Building Materials, 2023, 132994.

9. Yutong Liu, Zeliang Yang, Hui Luo, Lei Xi. Preparation, characterization, and properties of asphalt modified by surface-treated anhydrous calcium sulfate whiskers [J]. Construction and Building Materials, 2023, 131370.

10. Zhi Chen, Jian Lu, Anqi Mao, Lei Xi, et al. et al. Experimental Study on Ice Melting of Bridge Tower Crossbeams under Different Conditions [J]. Applied Sciences, 2023, 13(11): 1-15.