

Hailong SHENG

TEL: +86 13001082612 E-mail: shenghailong@hotmail.com

ADDRESS: No.1 Wujiachang Rd, Beijing, Haidian District, Beijing 100036 P. R.China

EDUCATION BACKGROUND

Master of Geotechnical Engineering (Top 5%, GPA: 90.8/100)

Sep. 2017 - Jun. 2020

China University of Mining & Technology, Beijing (211 Project, 985 Project Innovation Platform)

Dissertation: Experimental study on freeze-thaw damage and fluid-solid coupling characteristics of weakly cemented red sandstone

Supervisor: Professor Bo LIU (Vice Principal)

Bachelor of Civil Engineering (Top 10%, GPA: 85.78/100)

Sep. 2013 – Jun. 2017

China University of Mining & Technology, Beijing (211 Project, 985 Project Innovation Platform)

Dissertation: Architectural and Structural Design of Beiyuan Station of Beijing Metro Line 17

PEER-REVIEWED PUBLICATIONS

- Bo Liu, Yongjun Ma, **Hailong Sheng**, et al. Experiments on mechanical properties of Cretaceous red sandstone after freeze-thaw process[J]. *Rock and Soil Mechanics*, 2019, 40(S1): 161-171. (**3rd author, EI**)
 - **Providing literature reviews, participating in Experiment, processing data and analyzing results, drafting and revising the manuscript**
- Bo Liu, Yongjun Ma, **Hailong Sheng**, et al. Experimental study on mechanical properties of Cretaceous red sandstone under different freezing temperatures and confining pressures *Chinese Journal of Rock Mechanics and Engineering*. 2019, 38(3):455-466. (**3rd author, EI**)
 - **Providing literature reviews, participating in Experiment, processing data and analyzing results, drafting the first-version manuscript**
- Tao Li, Yongjun Ma, Bo Liu, **Hailong Sheng**. Strength characteristics and elastic modulus evolution of frozen grey sandstone under cyclic loading. *Journal of China Coal Society*. 2018, 43(9):2438-2443. (**4th author, EI**)
 - **Processing data and analyzing results, supplementary tests, figure drawing**
- Na Zhang, Bo Zhang, Longbiao Liu, **Hailong Sheng**. Numerical analysis of slope stability under the effect of rainfall infiltration. *Journal of Mining Science and Technology*. 2017, 2(2): 120-128. (**4th author**)
 - **In charge of numerical simulation, writing abstract and introduction part**
- Na Zhang, Fengchao Qiao, Bo Zhang, **Hailong Sheng**. Experimental study on pore structure features of sedimentary rocks in deep coal measures by mercury intrusion porosimetry. *Coal Science and Technology*. 2016, 44(10): 155-160. (**4th author**)
 - **Participating in Experiment, analyzing data**
- Na Zhang, Manchao He, Bo Zhang, Fengchao Qiao, **Hailong Sheng**, Qinhong Hu, Pore structure characteristics and permeability of deep sedimentary rocks determined by mercury intrusion porosimetry. *Journal of Earth Science*, 2016, 27(4): 670–676. (**6th author, SCI**)
 - **Providing literature reviews, participating in Experiment**

AWARDS AND SCHOLARSHIPS

- **National Encouragement Scholarship** for **two** consecutive years (**National-level** 2015 and 2016)
- **Second-Class Outstanding Students Scholarships** for **three** consecutive years (**University-level**, 2014, 2015, 2016)
- **Second-Class Scholarship** for Graduate Students (**University-level**, 2018)
- Certificate of **Excellence** for Graduate Students for **two** consecutive years (**University-level**, 2018 and 2019)
- Second Prize in Youth Forum (**Company-Level**, 2022)

COMPETENCIES

- **English Proficiency: IELTS 6.5** (Listen: 6.5 Reading: 6.5 Writing: 6.0 Speaking: 6.0)
- Proficient with numerical simulations employing **FLAC 3D**
- Proficient with figure drawing software: PS, AI, CAD, Origin and Tecplot
- **Total Station, Level Station, Slope Indicator**
- Extensive experience with programming languages, including **Fortran and C++**
- Registered Civil Engineer (Geotechnical) Certificate - Basic
- Certificate of Engineer (Intermediate)

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ACADEMIC RESEARCH PROJECTS

Experimental Study on Freeze-Thaw Damage and Fluid-Solid Coupling of Water-Rich Weak Cemented Sandstone Main participant Aug.2018 – Jun.2020

- Studied permeability characteristics and fluid-solid coupling characteristics of Mesozoic sandstone before and after freezing and thawing
- Modelled statistical damage in the rock under the coupling action of freeze-thaw-seepage-stress
- Analyzed the acoustic emission properties of Mesozoic sandstones during fluid-solid coupling tests
- Studied the change rule of microporous structure of rocks before and after freezing and thawing with the help of CT scanning technology

Study on Factors Affecting Water Absorption of Soft Rock Main participant Jun.2014 - Jun.2016

- Investigated the dynamic change law of water absorption by deep soft rocks over time
- Studied the effect of water absorption time on the strength softening, and deformation of deep soft rocks
- Researched mineral composition and microstructure of deep soft rock in relation to water absorption characteristics

Analysis of Ground Surface Settlement Caused by Different Construction Methods in Subway Construction Main participant Jun.2017 - Jun.2019

- Analyzed the effect of shield tunnelling and mining on the ground settlement
- Investigated the ground settlement law and the variation in internal forces during the excavation of foundation pits
- Analyzed the ground surface settlement in the tunnelling excavation by numerical simulation and similar model testing

EMPLOYMENT EXPERIENCE

China State Construction Engineering Corporation Ltd. Cost supervisor Jul. 2020 – Present

- Participate in the establishment and enhancement of cost and procurement management systems, as well as control systems for bidding and procurement. This includes the formulation of bidding documents, contract documents, cost estimation models, and strategic procurement management systems.
- Calculate costs, optimize solutions, and control expenses for the completion of real estate construction projects.
- Source and engage reliable suppliers and vendors, and negotiate with them to ensure favorable terms are obtained.
- Prepare bidding plans and oversee the execution of the entire bidding process.
- Take responsibility for the strategic procurement of construction-related components for high-end interior decoration projects, including materials such as wooden flooring and ceramic tiles.
- Review the target cost, dynamic cost, settlement, design modifications, engineering changes, and claims of the project.

INTERNSHIPS

Beijing Uni.-Construction Group co, Ltd Field Engineer Jun. 2017 – Jun. 2019

- Responsible for construction monitoring during the excavation of the open-cut tunnel, shield excavation tunnel and mining method tunnel of Beijing Metro Line 7
- Responsible for collating, summarising and reporting construction monitoring data, making daily, weekly and monthly monitoring reports.
- Provided recommendations for risk control measures for the construction site based on the identification and assessment of construction process risks
- Prepared the engineering monitoring plan for each monitoring point, determined the measurement level route, and arranged the monitoring points according to the construction plan.
- Monitoring content includes: surface settlement, pile top horizontal displacement, pile horizontal displacement, pile top settlement, tunnel vault settlement, and headroom convergence.

State Key Laboratory for Geomechanics & Deep Underground Engineering, CUMTB Lab Assistant Jan.2016–Jun. 2017

- Responsible for visa processing, ticket booking, trip planning, and budgeting for laboratory director (Manchao HE-Academician of Chinese Academy of Sciences) and professors going abroad.
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