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CHENGDU, CHINA

# The XIV Congress of the International Association for Engineering Geology and the Environment

Session 4-10

## Expansive Soil/Clay and (its) Environmental Effects



### Conveners

### Brief Introduction of the Session:



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Expansive soil/clay is one of the most widely distributed special soil in the world. The swell-shrink, cracking and overconsolidation behaviors of expansive soil are attribute to its mineralogy composition including montmorillonite, illite, kaolinite and other active clay minerals. Therefore, expansive soil is extremely sensitive to external factors such as climate change and human activities, leading to a high frequency of disasters. Especially in recent years, with the continuous constructions of high-speed traffic network and trans-regional water diversion projects, expansive clay has committed to hazards to engineering projects. Those problems have not only threatened the safety of human living and property security, but also influenced the sustainable development of society and economy. In this regard, the deformation and crack testing technology of expansive clay both indoors and in situ should be developed. Meanwhile, effective hydro-mechanical methodologies should be proposed for dealing with this kind of problems. Consequently, it is of great significance to explore the new method of prevention and treatment of expansive soil disasters.

Compacted bentonite is often considered as possible buffer/ backfill materials for geological disposal of high-level radioactive wastes due to its favorable swelling capacity, low permeability and sufficient sorption properties. The performance is related to the unsaturated soil mechanics and is often involved in very complicated thermo-hydro-mechanical and chemical (THMC) coupling conditions. Thus, investigation of compacted bentonite is of great importance for evaluating the engineered barrier system in the repository.

This special session aims to serve as a forum for active researchers to present their latest findings on the engineering geology problems related to expansive soil and (its) environmental effects, in attempting to promote the exchange of ideas, practices and state-of-the-art on a broad range of topics in the area.

## IMPORTANT DATES



Abstract for Oral Presentation and  
Poster Submission Deadline

**Jun. 30, 2023**



Early Bird Registration Deadline

**Aug. 10, 2023**



Online Registration Deadline

**Sept. 21, 2023**

## ◆ SUBMISSION ◆

### ▸ For the full-length submission

The submission system is now open for full-length papers. The deadline for submission of full-length paper has been extended to May 31, 2023. Please read the guidelines for paper submittal prior to submitting your full-length paper.

Please read the guidelines prior to submitting your full-length paper or long abstract at <https://www.iaeg2023.org/cfp.html>

### ▸ For the abstract submission

The abstract submission system for oral presentations and posters is open! If you would rather prepare an abstract for an oral or poster presentation, rather than submitting a full paper, please submit your abstract for consideration by June 30, 2023.

Please read the guidelines prior to submitting your abstract at <https://www.iaeg2023.org/cfa.html>



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