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

XIV IAEG CONGRESS 2023 CHENGDU

Session 3-9

Uncertainty Quantification of Megacity Engineering Geology and Its Effect on Underground Structures

Conveners

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Brief Introduction of the Session:

Thanks to the globalization and the urbanization, the megacity has been developed for over decades. The geotechnical and underground structures have played a great important role in this procedure. The safety and risks during the construction and operation of underground structures will heavily rely on the engineering geology in megacities. The uncertainty of the geology is the most concerned issues that will affect the factor of safety, reliability or resilience of the underground structures. In this regard, the practice of characterization of uncertainties of soils and rocks for megacities will be of great necessity to be discussed in an globalized platform such as IAEG XIV congress 2023. It is noticed that the uncertainty quantification for ground condition has a trend to be more digitalized, informatic and intelligent. Quite a number of AI-based or data-driven algorithms have been developed for the quantification of uncertainty. The subsequent effect of uncertainty on the underground structures has been monitored and measured by modern instruments for continuous and dynamic data. Hence, the following topics can be included but not limited: :

- Uncertainty Quantification of Geological Condition of Megacity
- Uncertainty Quantification of Geo-parameters for Soils and Rocks
- Machine Learning and data-driven Analysis of Ground Uncertainty Quantification
- Engineering Practice for Ground Uncertainty Quantification
- Effect of Uncertainty on Tunnel and Tunneling
- Effect of Uncertainty on Underground Space
- Smart Sensing and Inspection for Underground Structures

IMPORTANT DATES

Abstract for Oral Presentation and Poster Submission Deadline	Early Bird Registration Deadline	Online Registration Deadline
Jun. 30, 2023	Aug. 10, 2023	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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