

China - Europe Conference on Geotechnical Engineering (Aug 13 - 16, 2018, Vienna, Austria)

Underground Construction

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The development and exploration of underground space is a natural alternative to above ground development and opens new perspectives and opportunities in the quest of meeting challenges to urban modernization, efficient urban and transnational mobility and development of clean energy resources. Much attention is drawn to the comprehensive utilization of urban underground space, the construction of high-speed transportation systems, and the use of underground space for environmentally friendly exploitation and temporary storage of energy. The need for underground infrastructure such as urban underground complexes, tunnels, deep underground water reservoir and sewage systems, underground logistics and underground energy storage systems etc. has been rapidly emerging in the past few decades.

In order to overcome the risks and challenges connected with the construction of subsurface infrastructures, new construction materials and new methods for the reliable design and construction are highly in need, which cannot be achieved by only improving traditional underground construction methods and supporting structures. Innovations in techniques and methods during design and construction are of vital importance to reduce the risks in engineering and investment by ensuring high safety of the project. This includes, in particular, a fully digital work flow and integrated, reliable and accurate risk analysis and prediction models for the design as well as for the construction of underground structures.

The special session aims to serve as a forum for researchers to exchange the latest findings in underground construction in soft soil or rock mass. The special session welcomes contributions related to (but not limited to) the following topics: i) Innovative construction methods, ii) new materials in underground construction, iii) computational methods and models for the design and support of the construction process, iv) building information models and digital work flow in subsurface engineering, v) risk assessment and robust design.

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Further information on submission deadline can be found on the conference website: China-Europe Conference on Geotechnical Engineering, August 13-16, 2018, Vienna, Austria, website: <https://chinaeuro-geo.com/>.