

INVITATION TO THE LECTURE

OCTOBER 5, 2022

10:00

CONFERENCE ROOM

EBS TASK FORCE PROJECT - TASK 13: NUMERICAL MODELLING OF BENTONITE SWELLING INTO VOID SPACE

Martin Hasal

Institute of Geonics of the Czech Academy of Sciences, Ostrava

This talk describes our (Martin Hasal, Zdeněk Michalec, and Tomáš Ligurský) activity in EBS Task Force project - Task 13. This task aims on understanding of coupled hydro-mechanical processes during bentonite saturation into void space. It has two Stages, hydration by water vapour and hydration by water from bottom side of experiment.

Our model is based on the Richardson equation with water vapor diffusion. The mechanical part is based on the Extended Barcelona Basic model, which is a model of the elasto-plastic behavior of clay rocks.

We are going to show you the numerical results based on presented model. Finally, an examples of a suggested and follow-up projects will be shown.