



Software Tools for Surface and Underground Excavation Design

Rocscience invites you to an upcoming workshop in Kazakhstan. This three-day training workshop, featuring world-class specialists, is designed for all experience levels. The workshop will strengthen participants ability to model slopes with the Rocscience limit equilibrium software tools of Slide2 and Slide3 in both soil and rock masses. The workshop will also cover the practical numerical modelling of surface and underground excavations using RS2 and RS3, Rocscience numerical modelling software for stress and deformation analysis.

By attending the workshop, you will:

- Get acquainted with the latest tools for modelling and instrumenting geotechnical excavations and structures
- Appreciate the subtleties of modelling and monitoring soil and rock behaviour
- Interact with experienced international specialists and other geotechnical professionals

Registration Details:

Lunch, coffee, tea, and refreshments will be provided. Due to space constraints the workshop is limited to 30 participants.

Venue:

Rixos Almaty Hotel, Kazakhstan

Note

Participants must each bring their own laptop. Prior to the workshop, Rocscience will provide each participant with free temporary software licenses that are valid for 30-days.

Through a mix of presentations and “hands-on” tutorials with practical examples, participants will solve geotechnical problems encountered in civil engineering and mining design. The workshop will provide an overview of the capabilities and features of the software tools. Topics to be discussed will include the following:

Slope Stability: SLIDE and SLIDE3

- Review of failure modes of soil and rock slopes
- Overview of limit-equilibrium methods for slope stability analysis
- Selection of method for locating minimum factor of safety
- Techniques for optimizing failure surface
- Anisotropic material models for slope stability analysis
- Interpretation of results
- Tips and pitfalls of model building

Modelling of Surface and Underground Excavations: RS2 and RS3

- Overview of the Finite Element Method
- Fundamentals of stress and deformation analysis
- Material models and constitutive relations
- Development of models (construction of geometry, meshing, application of loads and boundary conditions, and analysis options)
- Interpretation of results
- Application of FEM to slope stability and underground excavation analysis
- Modelling of groundwater conditions
- Tips and pitfalls of model building



Lecturer
Reginald Hammah, M.Sc., Ph.D.
 Director, Rocscience Africa

Dr. Reginald Hammah holds a PhD in Civil Engineering from the University of Toronto and brings over 20 years of experience in rock mechanics and geotechnical engineering. Having worked in different roles throughout his career, he uniquely blends practical problem-solving experience with software tools and theoretical understanding of excavation behavior. He is well known for breaking down complex problems into simpler, more familiar and solvable components. Dr. Hammah is also passionate about applying advanced geomechanics material models to the problems of liquefaction, an issue which has brought to the fore of geotechnical practice due to recent tailings dam failures.