



# "GETTING STARTED WITH FLAC2D/FLAC3D" TRAINING COURSE

<b>Duration :</b>	7 Hours  Timetable: 2:30pm – 6:00pm CET (Paris) 7:30am – 11:00am (Chicago)
<b>Location :</b>	Online – Microsoft Teams Platform
<b>Instructor :</b>	Mr. Etienne Lavoine Itasca Consultants, S.A.S.
<b>Registration fees</b>	€800,00 (excl. Taxes)
<b>Audience</b>	Engineers with experience in numerical modeling
<b>Pre-requirements</b>	Pass the entrance test with 70% correct answers. Questions are related to basics of geomechanics.
<b>Teaching Methods</b>	<p>The topics covered during the training are approached in an evolutionary way, from simple to more complex. All our training courses are based on:</p> <ul style="list-style-type: none"><li>• Concrete cases: examples of applications made by Itasca to illustrate and apply key concepts.</li><li>• Sharing practices and experiences: Sharing practices and experiences enhances and enriches the training experience.</li><li>• Theoretical contributions: the instructors review theoretical background essential to the understand of the key numerical modelling concepts that are taught during the training.</li></ul> <p>Our instructors have a wealth of knowledge gained from the consulting studies they conduct for our clients. We value this knowledge by stimulating exchanges between professionals and promoting learning sharing within the group.</p>
<b>Training Materials</b>	<ul style="list-style-type: none"><li>• Practical cases and scenarios directly in the software</li><li>• Powerpoint presentation</li><li>• Free exchanges with the group</li><li>• Theoretical contributions</li></ul>
<b>Assessment Methods</b>	The course ends with an individual test to validate the knowledge acquired, consisting of a quiz of a few questions on the concepts covered during the course.
<b>Objectives</b>	<ul style="list-style-type: none"><li>• Understand the FLAC2D/ FLAC3D numerical approach and the types of problems it can solve</li><li>• Know how to manipulate the FLAC2D/ FLAC3D user interface to access and interpret results</li><li>• Follow the recommended solution procedure to simulate a simple case</li></ul>

# **OUTLINES:**

1. Introduction to Itasca software and FLAC2D/3D
  - Overview of Itasca code applications
  - Discover the graphical user interface
  - Description of fundamental principles
2. Building a geometric model
  - Introduction
  - Discover the "Sketch" tool
3. Modeling steps
  - Constitutive models
  - Initial and boundary conditions
  - Structural elements
4. Application
  - 2D tunnel excavation model
  - Extension to 3D case
5. Introduction to advanced tools
  - Scripting capabilities (FISH / Python)
  - Complex meshing tools
  - Complex physical processes (creep / thermal / dynamic / fluid)