

Training course: Shallow landslide modelling for vegetated slopes using SOSlope

Date: Friday 22 June 2018
Place: Meet Ullevaal Conference Center, Oslo, Norway
Language: English

Description of SOSlope:

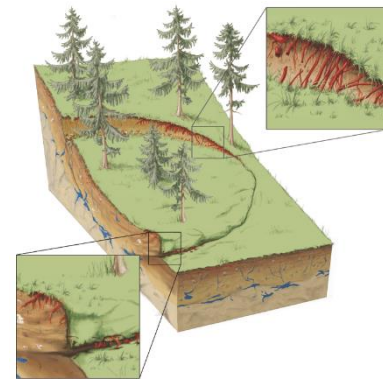
- A new model for slope stability that takes into account root reinforcement due to vegetation and tensional/compressional forces arising from both roots and soil.
- Uses displacement-controlled, fibre-bundle model concepts for estimating forces in roots and soil
- Based on a discrete element formulation
- Uses a simplified hydrologic model
- Estimates factor of safety and zones of failure during a rainfall event
- GUI based, easy to use, accessible via ecorisQ, an international association for natural hazard risk management

References:

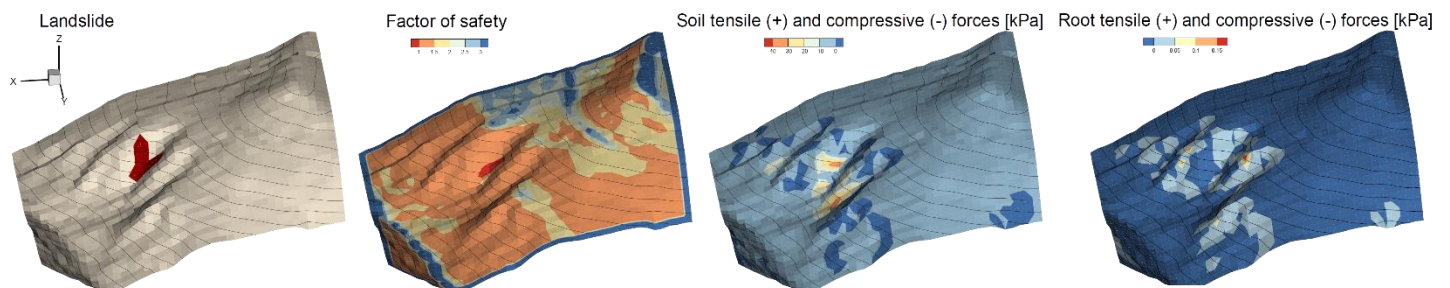
- Cohen and Schwarz (2017), Tree-root control of shallow landslides, Earth Surf. Dynam., 5, 451–477
- <http://www.ecorisq.org/ecorisq-tools>

Friday 22 June 2018 Agenda

8:15	Welcome coffee
8:30	Introduction of the course & presentation of the participants
9:00	Introduction to SOSlope
9:15	SOSlope GUI and options
9:30	Preparing DEM and Topographic Wetness Index (TWI) files
10:30	Coffee break
10:45	DEM and TWI exercises
11:15	SOSlope soil and vegetation input files
12:00	Lunch
13:30	SOSlope approach and methodology
14:30	Worked out example
15:30	SOSlope output files and visualization of results
16:30	Hands on exercises with participants
17:30	End of training course



SOSlope takes into account root reinforcement in both tension and compression during shallow landslide initiation like, for example, at the head scarp and at the toe of the landslide.



SOSlope can predict shallow landslide location, compute factor of safety and tensile and compressive forces in soil and roots.

Things to bring:

- Laptop with administrator rights with GIS program (QGIS or ArcGIS) and SOSlope installed
- DEM of own project for exercise application

For more information:

Denis Cohen (USA)
Cell: +1 575 404 0701
email: denis.cohen@gmail.com

Massimiliano Schwarz (Switzerland)
Work: +41 (0)31 910 2179
email: massimiliano.schwarz@bfh.ch