

Earth Sciences Department

Geotechnical behavior of natural and excavation slopes



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Objectives

A set of investigations are being put forward aiming to improve:

- engineering geological characterization of soils and rocks;
- landslide hazard and risk assessment on natural slopes;
- assessing stability and stabilisation methods of rock cuts;
- assessing the efficacy of hydraulic interventions on sensitive shorelines which have been submitted to an increasing human occupation and to natural and induced phenomena of erosion / accretion.

Methodology

Several investigation on geological and geotechnical features are underway, namely:

- to analyze rock mass excavability and stability restraints for highways cuts, namely by comparing design and construction data and also the present conditions of such slopes;
- to analyze the changes induced by human activities both in shoreline natural equilibrium as well as in natural and man made slopes, and to assess the hazard and risk associated to those phenomena.

Expected Results

To contribute to a more reliable and sustainable land development, namely by promoting PhD and MSc thesis in Geological Engineering

