

Dipartimento di Ingegneria dell'Energia, dei Sistemi, del Territorio e delle Costruzioni

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Invitation to the seminar

Study of the impact of vegetation on slope stability

held by

Piera Paola Francesca Capilleri, PhD Researcher in Geotechnical Engineering

Tuesday 30 April 2020, from 11 a.m. to 1 p.m. and from 2 p.m. to 4 p.m. at DESTEC – thesis room - first floor - via gabba 22, Pisa

Bioengineering approaches provide cost-effective ways to protect slopes against surface erosion and shallow mass movements. Indeed, vegetation is an excellent way to control slope erosion and instability of slopes. Plants play an active role both on the surface, protecting and holding soil particles, and at deeper layers, reducing pore pressure and increasing soil shear strength. The use of vegetation is particularly appropriate where soil stabilization measures are needed. In this seminar, a series of laboratory tests are described, together with the equipment used, to better understand plant root effects on soil shear strength and slope stability.

Agenda

from 11 a.m. to 1 p.m

The contribution of plant roots to slope stability

- Background information
- The collapse of soil structures
- Degradation process
- Biotechnical-soil bioengineering approaches

from 2 p.m. to 4 p.m.

Experimental activity to define the contribution of root

- Theoretical Background
- Experimental activity
- Laboratory tests and equipment
- Discussion of the results