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Call for participation

Slope stability hazard in Alpine areas (2nd edition)

Field trip on geotechnical, geomechanical and hydrogeological in-situ tests and measurements for the characterization of soil and rock properties with special focus on the interactions with slope stability issues (Università degli Studi di Milano, Charles University, Heidelberg University)

Event start	21 May 2023
Event end	27 May 2023
Venues	Stazione Valchiavenna per lo Studio dell'Ambiente Alpino (Chiavenna, SO)
Deadline for application	Apply by 17 April 2023
How to apply	Send the requested documents (curriculum vitae et studiorum and motivation letter) to corrado.camera@unimi.it
Language:	English.

Who can apply?

University of Milan students can apply if they are enrolled in the MSc Degree in Earth Sciences (F97), curriculum in Environmental Geology, Engineering Geology and Hydrogeology

12 students from the University of Milan and 4 students from both Charles University Prague and University of Heidelberg will be selected. The students will be selected based on *curriculum vitae et studiorum* and motivation letter.



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If eligible, you will be awarded a 4EU+ allowance for travel and accommodation expenses.

Course timetable

Chiavenna, 21-27 May 2023

Sunday, 21 May

Starting from the afternoon, arrival in Chiavenna. Meeting point, Stazione Valchiavenna per lo Studio dell'Ambiente Alpino, welcome from Università degli Studi di Milano staff.

Monday, 22 May:

- Introduction to the geology and geomorphology of Valchiavenna
- Description and geomechanical classification of rock masses, execution of geomechanical survey
- Landslides in the Alpine environment
 - The historical landslide of Cimaganda and the recent mass movement episodes: mapping of the main morphological and geomechanical characteristics of the area to interpret the geomorphological evolution of the valley
 - The rock fall episodes at Gallivaggio, monitoring and emergency management
 - The complex landslide of Val Genasca, an overview of its monitoring network

Tuesday, 23 May:

- Lago Azzurro case study (relationships between slope dynamics and hydrogeology)
 - In-situ measurements for the characterization of the physico-chemical properties of water
 - In-situ tests for the definition of the hydrogeological properties of soils



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- Geomorphological survey of the Lago Azzurro area to define the processes allowing the lake recharge
- Artificial Lake, Isola
 - Slope erosion processes and stabilization works
 - Channel erosion processes and hydraulic structures for flow regulation
 - Granulometric analysis of a coarse soil with the grid method
- Creation of 4-5 groups (4-5 students each) and assignment of the tasks related to the geological-technical mapping and material (soil, water) testing, over specific areas, to be carried out from Wednesday to Friday.

Wednesday, 24 May; Thursday, 25 May; Friday, 26 May:

- Group mapping and soil, water testing activities, each group in the assigned area. Instructors will move from group to group for supervision. Each group will also have a reference person (a PhD student or a research assistant of the UNIMI group).

Saturday, 27 May

- Check of the maps produced by the different groups and discussion of possible problems and doubts regarding field tests and measures and their post-processing. At lunch time, end of works.



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