



POST-GRADUATE COURSE

Protecting Mountain Society from Natural Hazards: Plans or Dams?



La Valette landslide, over the city of Barcelonnette, France

24 - 29 June 2013
Barcelonnette, France

Website: omiv2.unistra.fr/formose2013

OBJECTIVES AND CONTENT

The objective of this course is to present theoretically and with practical exercises, several tools used for the operational management of landslides and torrential floods in mountain areas, with specific emphasis on planning and early warning.

Control measures can be broadly divided into passive (i.e non-structural) and active (i.e structural) mitigation measures.

Passive measures are mainly land-use planning regulations based on mapping methods and the installation of monitoring instruments associated to thresholds identification for early warning systems; active methods of protection are based on the construction of engineering defense works.

The course is divided in three separate parts, each of them presenting different control measures. The first part consists in the presentation of prevention maps; the second part presents the monitoring techniques and early-warning systems including Decision Support Systems; the third part discusses engineering measures.



WORKING LANGUAGE AND DOCUMENTS

Lessons will be given in English. Documents given at the beginning of the lessons will also be written in English

CANDIDATE SELECTION

The Intensive course is dedicated to young post-graduate and PhD students which research topics concern natural hazard and risk assessment. Extended discussion between senior scientists and doctoral students will be a distinctive feature of this Post-Graduate School. The registration form at the end of this circular has to be returned to the organisation committee for 2013, May 17.

REGISTRATION FEES

Fees (educational services -field visits, documentation- and accomodation -food, rooms-) are fixed at 280 €. The lectures will take place at "Centre SEOLANE" in Barcelonnette. All the accepted candidates will receive a more detailed information on the course venue.

ACCESS & VENUE



Additional information on the Centre SEOLANE is available at <http://www.seolane.eu>.

Pick-up at Lyon and Marseille airports will be scheduled on the late afternoon/evening of Sunday 23/6.

TEACHING TEAM

- Claire ARNAL, BRGM, Marseille
- Thom BOGAARD, TUD, Delft
- Simone FRIGERIO, CNR-IRPI, Padova
- Michel JABOYEDOFF, UNIL-CRET, Lausanne
- Dominique LAIGLE, IRSTEA, Grenoble
- Eric LEROI, URBATER, Pau
- Frédéric LIEBAULT, IRSTEA, Grenoble
- Fabio LUINO, CNR-IRPI, Torino
- Jean-Philippe MALET, CNRS-IPGS, Strasbourg
- Olivier MAQUAIRE, LETG-Geophen, Caen
- Alexandre MATHIEU, CNRS-IPGS, Strasbourg
- Olga-Christina MAVROULI, UPC, Barcelona
- Clément MICHOD, UNIL-CRET, Lausanne
- Roland NUSSBAUM, AFPCN, Paris
- Erik PETERS, Alert Solution, Delft
- Alexandre REMAITRE, CNRS-IPGS, Strasbourg
- Simone STERLACCHINI, CNR-IDPA, Milano
- André STUMPF, CNRS-IPGS/LIVE, Strasbourg
- Jean-Marc TACNET, IRSTEA, Grenoble



PROGRAMME

June 24, 2013:

Non-structural measures / Prevention maps - Part 1

Morning: Theoretical course: methodology of risk mapping
-different case studies-

Afternoon: Practical course: application of methodology of risk mapping at 1:25.000 scale with GIS
Short field visit (at Adroit landslide)

June 25, 2013:

Non-structural measures / Prevention maps - Part 2

Morning: Practical course: application of methodology of risk mapping at 1:25.000 scale with GIS. Continuation

Afternoon: Practical course: application of methodology of risk mapping at 1:25.000 scale with GIS. Work in groups and presentation/discussion of the maps created per groups

Evening: Invited speaker - Relation spatial planning – insurance

June 26, 2013:

Non-structural measures / Monitoring & Early-warning techniques - Part 1

Morning: Theoretical course: monitoring techniques for landslides and torrential floods. Methods to identify thresholds

Afternoon: Practical course: Identification of thresholds for torrential floods and landslides early-warning. Work in groups, analysis of time series, value of a threshold

Evening: Invited speaker - The view of a practitioner

June 27, 2013:

Non-structural measures / Monitoring & Early-warning techniques - Part 2

Field work: Practical use of instruments in the field (GPS, LiDAR, total station, hydrology, geophysics, etc). Day at Super-Sauze landslide

Evening: Invited speaker - Risk mitigation measures along Alpine valley floors

June 28, 2013:

Structural measures: Mitigation works

Morning: Theoretical course: correction of torrents and slope profiling

Afternoon: Practical course: calculation of the geometry of dams, use of civil engineering models, etc. Work in groups.
Short field visit (at La Valette landslide with EW system)

Evening: Invited speaker - Private company

June 29, 2013:

Operational warning systems and DSS

Morning: Theoretical and practical course: Integrated Platforms for Monitoring and Warning Systems in a DSS context.

Afternoon: Short field visit (at Abeous torrent)
Course evaluation

REGISTRATION FORM

First name

Last name

Birth date Nationality

Position

Organisation

Address

Area code / City

Phone

Fax

Email

Enclose to this registration form a one page curriculum vitae describing your field and level of study and your research and/or professional experience.

After selection of the participants, you will receive an invoice with all the details on the payment possibilities.

Signature

Send the completed form to the organisation committee by mail for 2013, 17 of May:

Alexandre REMAÎTRE
School and Observatory of Earth Sciences [EOST]
Institut de Physique du Globe de Strasbourg [IPGS]
5 rue Descartes, F-67084 Strasbourg Cedex
Direct line: +33 (0)3 688 502 61
Fax: +33 (0)3 688 501 25
e-mail: a.remaître@unistra.fr

Website: omiv2.unistra.fr/formose2013