

FORMOSE POST-GRADUATE TRAINING SCHOOL

Coastal hazard assessment and risk management



19-25 June 2011
Caen, France

AIM AND OBJECTIVES

In recent years, the interest in **coastal instability** has significantly increased due to an increasing frequency of disasters in different parts of the World, and particularly in Europe. Slope processes (cliff rockfalls, coastal slides, storm surges, sea-level rise and shoreline retreat) presently has a significant impact on the built environment and infrastructure. The topography, geology, present and past climatic conditions and human modification of the landscape result in geomorphological processes being active along many coastal areas. Improved forecasting of medium to long-term coastal hazards in the context of progressive climate change is required to assess the level of potential impacts on land use, maintenance and development of the built environment, transport infrastructure and utilities. This will lead to the development of appropriate monitoring, management, design and remediation strategies.

The aim of the course is to provide the participants with updated knowledge on traditional and innovative multi-disciplinary methods and techniques for the analysis of geomorphological coastal instability processes and related hazards and risks.

The attendees will gain knowledge on the research framework used to address coastal hazard and risk assessment and management, including:

- principles of sustainable coastal risk management strategies,
- techniques for coastal process investigation and monitoring,
- methods for quantitative hazard and risk analysis at various temporal and spatial scales,
- implementation of the risk analysis in land-use planning procedures.

Field-trips will demonstrate examples of management strategies for specific types of coasts (sandy coasts, hard rock cliffs, soft rock slopes).

Organisation committee

Olivier Maquaire, CERG & University of Caen-Basse-Normandy, France
Stéphane Costa, University of Caen Basse-Normandy, France
Jean-Philippe Malet, CERG & CNRS, University of Strasbourg, France
Alessandro Pasuto, CERG & CNR-IRPI, Padova, Italy
Mauro Soldati, CERG & University of Modena & Reggio Emilia, Italy
José Luis Zézère, CERG & University of Lisbon, Portugal

ORGANISATIONAL SCHEDULE

The Post-Graduate Training School is taking place within the framework of the **European training programme on risk sciences (FORM-OSE)**. FORM-OSE is part of the training programme of the *EUR-OPA Agreement* of the *Council of Europe* and aims at training in risk sciences at European level. The training school is organized by the '**European Centre on Geomorphological Hazards**' (CERG, Strasbourg, France), which is one of the 27 centres of the *EUR-OPA Agreement*, in close collaboration with the '*Euro-Mediterranean Centre on Insular Coastal Dynamics*' (ICoD, Valletta, Malta) and the '*European Centre on Coastal Risks*' (CerCo, Biarritz, France). Further support is provided by the *University of Caen-Basse-Normandy* (Department of Geography, GEOPHEN) and the *International Association of Geomorphologists* (IAG).

The course include theoretical lessons, field visits and practical training to enable the participants to become familiar with high-standard methods for the recognition, monitoring and modeling of coastal processes. In the evening, conferences will be organized.

CANDIDATE SELECTION

The Post-Graduate Training School is dedicated to young post-graduate and PhD students. The total number of participants is fixed at 30 students, chosen on the basis of a CV send at the registration stage. The maximum number of participants is 30 students. Candidates are selected based on a CV and a letter of interest (max. 1 page) which are due on **30 April 2011** together with the registration form at the end of this circular.

Selected candidates will receive a second circular with detailed information on travelling and programme shortly after the deadline.

REGISTRATION AND FEES

Registration fees (educational services, traveling facilities during the Post-Graduate Training School) are fixed at €250 per participant. Fees for recipients of grants are €100. The *European Centre on Geomorphological Hazards* offers the lodging and the meal to the students. Five grants of €300 to cover travelling costs for MSc and PhD students from southern Mediterranean and Eastern Europe are offered by *EUROPA* and *IAG*. Students will be lodged in individual rooms from CROUS in the main Campus in the centre of Caen.

TEACHING TEAM

Courses will be given by international renown scientists from the field of geomorphology, engineering geology, geophysics and image processing. Teachers originating from France, Italy, United Kingdom, Malta, Portugal and The Netherlands are:

- Edward Anthony, *CEREGE, Aix-en Provence University, France*
- Gaël Arnaud, *CERCO, Specialised European Centre on Coastal Risks, Biarritz, France*
- Thom Boogard, *Delft University of Technology, The Netherlands*
- Mathilde Charon-Burnel, *Syndicat Mixte 'Baie du Mont St-Michel', France*
- Stéphane Costa, *University of Caen Basse-Normandy, France*
- Christophe Delacourt, *IUEM, University of Brest, France*
- Romain Desguée, *Syndicat Mixte 'Baie du Mont St-Michel', France*
- Jean-Philippe Malet, *CERG & CNRS, University of Strasbourg, France*
- Olivier Maquaire, *CERG & University of Caen Basse-Normandy, France*
- Vincent May, *University of Bournemouth, United Kingdom*
- Robin McInnes, *Coastal & Geotechnical Services, Ventnor, United Kingdom*
- Anton Micallef, *ICoD, Euro-Mediterranean Centre on Insular Coastal Dynamics, Valletta, Malta*
- Alessandro Pasuto, *CERG & CNR-IRPI, Padova, Italy*
- Mauro Soldati, *CERG & University of Modena & Reggio Emilia, Italy*
- Simone Sterlacchini, *CERG & CNR-IDPA, University of Milano-Bicocca, Italy*
- Serge Suanez, *University of Brest, France*
- José Luis Zézère, *CERG & University of Lisbon, Portugal*



WORKING PROGRAMME

Sunday - June 19, 2011

- + Registration and ice-breaker from 4 p.m
- + Presentation of the participants

Monday - June 20, 2011

- + Theoretical lessons (morning): *Coastal risks, disasters & lessons learned*
- + Theoretical lessons (afternoon): *Techniques for analysing coastal processes (shoreline retreat, slope evolution and underwater slope recognition)*

Tuesday - June 21, 2011

- + Practical training in the field (Villerville landslide): *On-site techniques for the survey of coastal instability*

Wednesday - June 22, 2011

- + Practical training in computer processing: *Analysis of the data acquired in the field*

Thursday - June 23, 2011

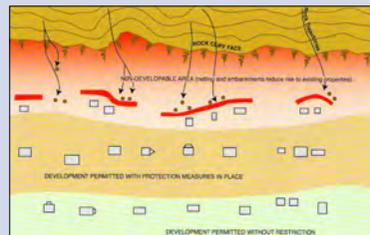
- + Field trip -1: *The Mont St-Michel Bay (UNESCO World Heritage Site). Long-term management of the bay and its natural and anthropic evolution*

Friday - June 24, 2011

- + Theoretical lessons (morning): *Methods for quantitative coastal hazard and risk assessment*
- + Theoretical lessons (afternoon): *Example of coastal risk management*

Saturday - June 25, 2011

- + Field trip -2: *The Etretat-Fécamp shoreline (Seine-Maritime). Risks associated to hard rock cliffs and storm surges.*
- + End of course at 6 p.m



REGISTRATION FORM

First name

Last name

Birth date Nationality

Position

Organisation

Address

Area code / City

Phone Email

I wish to apply for the FORMOSE/CERG grant

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, the participants will receive a document detailing the payment possibilities.

Signature

Send the completed form to the organisation committee by email for **2011, April 30** to Olivier Maquaire / CERG
Adress: cerg@equinox.u-strasbg.fr

