

TRAINING COURSE ON COASTAL EROSION MANAGEMENT

12th – 16th September 2005, Faculty of Engineering, Porto, Portugal

Background

One quarter of the European Union's coast is currently eroding despite the development of a wide range of measures to protect shorelines from eroding and flooding. The prospect of further sea level rise due to climate change and the heritage of mismanagement in the past - such as inappropriate infrastructure - imply that coastal erosion will be a growing concern in the future. Managing coastal systems is hence an increasing challenge for all those who have to take decisions or provide consulting services about coastal development and conservation especially in erosion prone areas.

The Course "Coastal Erosion Management" aims at providing practical, scientifically sound training to those who have the task of finding solutions to coastal erosion related problems while working e.g. for coastal municipalities, planning institutes, or consulting companies. The week-long training on the campus of the University of Porto will

- **equip course participants with essential knowledge on coastal processes that drive coastal erosion**
- **provide insight into the whole array of state-of-the art measures developed for coastal erosion management**
- **give participants the opportunity of presenting their local cases of coastal erosion and developing economically and environmentally sound solutions together with their peers and outstanding experts in the field**
- **provide access to life-long learning material.**

Course material will make best use of the conclusions of the EUROSION study (www.euroasion.org) commissioned by the General Directorate Environment of the European Commission, which has resulted in policy recommendations on how to manage coastal erosion in Europe in the most sustainable way. The course will also benefit from the inputs of leading European Integrated Coastal Zone Management (ICZM) initiatives, namely CoPraNet and CoastLearn as coastal erosion is best managed applying the ICZM approach.

CoPraNet - The Coastal Practice Network is an Interreg project to help establish a coastal practitioners network and bridge the gap between planners, managers and the research community throughout Europe. CoastLearn is a distance ICZM vocational training package that makes extensive use of the electronic media.

Organised by: Hydraulics and Water Resources Institute / Faculty of Engineering, University of Porto
With the support of:



Who Should Attend the Course?

The target group of participants includes professionals working for local or regional authorities, consulting companies, and planning institutes active in the fields of coastal zone management and coastal engineering, especially those with responsibilities at the local level. Up to five PhD students will also be given the opportunity of attending the course. Applicants are expected to understand and speak English, the course language.

Format

The “Coastal Erosion Management” Course incorporates a mixture of training instruments, including lectures; presentations; discussions; role-plays; case studies; and a study field visit to local sites.

Experts of the EUROSION project, as well as other lecturers with an excellent reputation in their field and in-depth knowledge of the problems coastal practitioners are facing nowadays will be responsible for course content. A considerable percentage of time will be allocated to the presentation of actual cases of coastal erosion by participants, as well as on extensive discussions on how these cases can best be managed. Every hour of lecture will be accompanied by at least half hour of question and answer session and for discussions. This highly interactive and practical course format ensures that each course participants will receive information best suited to his or her tasks and environment.

Course Coordination

The Hydraulic and Water Resources Institute/Faculty of Engineering of the University of Porto (IHRH/FEUP, Portugal) and the EUCC Mediterranean Office will coordinate the “Coastal Erosion Management” Course.

Course Topics

The Course will cover the following topics in the framework of lectures, case study presentations and field visit:

- **Coastal and beach morphology | nearshore processes | coastal structures | hydrodynamics | longshore and cross-shore dynamics**
- **Coastal Hazards**
- **GIS and Data Management**
- **Environmental and Strategic Impact Assessment**
- **Survey and Monitoring**
- **Coastal and Marine Spatial Planning**
- **Soft and hard coastal engineering techniques**
- **Integrated Management and Decision Support Systems**
- **Coastal Sediment budget | Restoring the sediment balance | Identification and designation of “strategic sediment reservoirs”**

- **Beach Erosion Management: beach use | mitigation of beach erosion | integrated beach erosion management (public perception of coastal structures, nature conservation, legislation, etc)**
- **Socio-economical aspects, in particular cost-benefit analysis.**

Priority will be given to those topics most relevant to course participants. To this aim, successful course applicants will be requested to submit in advance at least one case study from their individual working context and a list of priority issues.

Local Organizing Committee

IHRH/FEUP, University of Porto, Portugal

Fernando Veloso Gomes | Francisco Taveira Pinto | Luciana das Neves | Joaquim Luís Pais Barbosa | Hugo Lopes | Paulo Rosa Santos | Raquel Silva

Scientific and International Advisory Committee (provisional)

Fernando Veloso Gomes | Roland Paskoff | Francisco Taveira Pinto | Krystian Pilarczyk | Óscar Ferreira | Giovanni Randazzo | Jordi Serra |

Venue

The course will be held from September 12 to 16, 2005 at the Faculty of Engineering of the University of Porto, Porto - Portugal (www.fe.up.pt).

Application and Course Admission Selection

Admission requirements include some years of working experience and a good command of the English language. The course is limited to about 25 participants.

Due to the limited number of applicants admitted to the Course, the Scientific Committee on the basis of each individual curriculum and application letter will make a selection. If necessary, priority will be given to applications in order of arrival. **A letter of acceptance will be sent by e-mail to successful applicants.**

How to submit an application?

There is no application form. Applications must be in English and provide the following information:

- 1. In the body of the covering email: Name and full coordinates of applicant.**
- 2. In attachment (only in word, rtf or pdf):**
 - **Letter of interest: personal statement of why you wish to participate in this course, including the results you are expecting to obtain and why you think you would be particularly suitable to participate;**
 - **Brief Curriculum Vitae: maximum of 3 pages, including projects on course topic, a detailed description of relevant present activities. References of the 5 most relevant publications of the last 5 years are optional.**

Applications should be emailed as 1 attachment to fpinto@fe.up.pt. First submissions will be considered final (no revisions accepted).

Language

The official language of the course will be English; no translation facilities will be provided. All the course notes distributed to participants will be written in English.

Certification

Participants who complete the entire course (at least 90% of the course, including the field study work) will be given a Course Certificate.

Course Fee

EARLY (before 30.06.2005)	450 €
LATE (after 30.06.2005)	550 €

The fee includes:

- **All tuition costs;**
- **Accommodation in an University Residence in single room apartments (only for those who wish and if available);**
- **Coffee breaks and lunches on working days;**
- **All necessary course materials;**
- **Access to a PC and to the Internet.**

In any case, travel to and from the place of venue is the responsibility of each participant and will not be sponsored, as well as any other personal allowances.

The Organizing Committee reserves the right to make changes to the published programme and other arrangements as deemed necessary.

How should I pay?

Fees can only be paid by means of Bank-to-Bank Transfer:

- **Account Name: IHRH,**
- **Bank: Millennium BCP**
- **Address: Rua Júlio Dinis, 705-714, 4050 Porto, Portugal**
- **IBAN code: PT 50 0033 0000 0000 2059 3110 5**
- **Swift/BIC code: BCOMPTPL**
- **Details of payment: “Coastal Erosion Management/your name”**

Please make sure to indicate: “Coastal Erosion Management” and participant name on all money transfers. All payments should be net of bank-charges.

Fee payment should be made only after communication of acceptance and before the beginning of the Course, at the latest by the end of July 2005.

Proof of payment (copy of the Bank transfer) must be sent by fax or e-mail to the Course Secretariat together with the information for the invoice/receipt (Institution or Name; full address; VAT Reg no.). Cancellations will be refunded at a rate of 50% if received up to 31st July 2005.

Contact

Queries about application, registration fee and any logistical aspects should be addressed to the Course Secretariat, at the following coordinates:

Prof. Francisco Taveira Pinto, IHRH/FEUP
Rua Dr. Roberto Frias | 4200-465 Porto | Portugal
Tel.: +351 22 508 1924 | Fax.: +351 22 508 1952 | e-mail: fpinto@fe.up.pt

Preliminary Programme

	Day 1 [12.Sep]	Day 2 [13.Sep]	Day 3 [14.Sep]	Day 4 [15.Sep]	Day 5 [16.Sep]
[9h – 10h30m]	Welcome and Interactive Lectures [M.1.1]	Interactive Lectures [M.2.1]	Study Field Visit	Interactive Lectures [M.4.1]	Interactive Lectures [M.5.1]
[10h30m – 11h]	Coffee Break	Coffee Break		Coffee Break	Coffee Break
[11h – 12h30m]	Interactive Lectures [M.1.2]	Interactive Lectures [M.2.2]		Interactive Lectures [M.4.2]	Interactive Lectures [M.5.2]
[12h30m – 14h]	Lunch	Lunch		Lunch	Lunch
[14h – 15h30m]	Case studies [CS.1]	Interactive Lectures [M.3.1]		Case studies [CS.3]	Case studies [CS.5]
[15h30m – 16h]	Coffee Break	Coffee Break		Coffee Break	Coffee Break
[16h – 17h30m]	Case studies [CS.2]	Interactive Lectures [M.3.2]		Case studies [CS.4]	

Programme Contents

INTERACTIVE LECTURES

Module 1: Introduction to Coastal Erosion Management (3h)

- [M.1.1] Coastal Hydrodynamics and Sediment Transport Processes
Prof. Fernando Veloso Gomes & Prof. Francisco Taveira Pinto
Faculty of Engineering, University of Porto, Portugal

- [M.1.2] Coastal Engineering Interventions and Defence Schemes. Examples from the Portuguese west coast
Prof. Fernando Veloso Gomes & Prof. Francisco Taveira Pinto
Faculty of Engineering, University of Porto, Portugal

Module 2: Assessment of Coastal Erosion Risks (3h)

- [M.2.1] Assessment of Coastal Erosion Risks
Prof. Óscar Ferreira
Faculty of Marine and Environmental Sciences, University of Algarve, Portugal
- [M.2.2] Coastal Sediments Management
To be defined

Module 3: Coastal Erosion Management (3h)

- [M.3.1] Shore and Coastal Protection Concepts in the UK
To be defined
- [M.3.2] Monitoring and Modelling the Shoreline
To be defined

Module 4: Soft Interventions for Coastal Protection (3h)

- [M.4.1] Alternative Solutions for Detached Breakwater and Design Aspects
Dr Krystian W. Pilarczyk
Road and Hydraulic Engineering Division, Rijkswaterstaat, Delft, The Netherlands
- [M.4.2] Geosystems and Geosynthetics in Coastal Engineering
Dr Krystian W. Pilarczyk
Road and Hydraulic Engineering Division, Rijkswaterstaat, Delft, The Netherlands

Module 5: Living with Coastal Erosion in Europe – Results from the EUrosion Study (3h)

- [M.5.1] The EUrosion Study
- [M.5.2] EUrosion Findings and Recommendations
To be defined

CASE STUDIES

- [CS.1] Worldwide Experiences on the Use of Geotextile Containers
NAUE GmbH & Co. KG

- [CS.2] **Coastal Defence Schemes. Examples from abroad**
(presentations made by course participants)
- [CS.3] **Beach Erosion Management**
(presentations made by course participants)
- [CS.4] **Coastal Sediments Management**
(presentations made by course participants)
- [CS.5] **Strategic Environmental Assessment and Coastal Erosion**