**Erasmus Mundus Master Programme in** 

# **Flood Risk Management:**

Global Change, Hydroinformatics and Planning



The Erasmus Mundus Master Programme in Flood Risk Management is offered by a consortium consisting of

- UNESCO-IHE Institute for Water Education (the Netherlands)
- Technical University of Dresden (Germany)
- Barcelona Tech (Barcelona, Spain)
- University of Ljubljana (Slovenia)

Start date: September 2011, duration: 2 years, language: English Locations: Delft (the Netherlands), Dresden (Germany), Barcelona (Spain) and Ljubljana (Slovenia) Degree: Successful candidates receive MSc degrees from TU Dresden, UNESCO-IHE and UPC Barcelona.

The associated members include European hydraulics laboratories, namely, DHI (Denmark), Deltares (the Netherlands) and HR Wallingford (UK), and key national organisations responsible for flood management, including Rijkswaterstaat (the Netherlands), ICHARM (Japan) and three organisations from Bangladesh. These partners bring their specific complementary expertise in flood risk management to the programme.



### INTRODUCTION

Integrated flood risk management aims to reduce the human and socioeconomic losses caused by flooding while at the same time taking into account the social, economic, and ecological benefits from floods and the use of flood plains or coastal zones. The need for the adoption of a holistic integrated approach to managing flood risks has been reflected in Flood Directive of the European Parliament.

The programme follows the holistic approach and is explicitly designed to cover wide range of topics - from drivers and natural processes to models, decisions and socio-economic consequences and institutional environment, and is therefore an important advance in water education for Europe.

PROGRAMME	

Semester 1 (Dresden)	Hydro-meteorological processes, global change and its impact, flood risk management and GIS
Semester 2 (Delft)	Hydroinformatics, modelling for planning, forecasting, control and decision support, hazard mapping, ICT and fluvial flooding and urban flood disasters
Semester 3.1 (Barcelona)	Hazards due to flash floods, debris flow, coastal flooding, and climate change
Semester 3.2 (Ljubljana)	Spatial planning and socio-economic and institutional framework of flood risk management
Semester 4	Thesis work with one of the four institutes or with an industrial partner

A number of elective subjects are provided in each semester. International fieldtrips are organised. During the 2-year programme students accumulate 120 ECTS credits.

## TARGET GROUP

The course is designed for young graduates in civil/ environmental engineering or a related discipline, and water professionals (engineers and scientists), decision-makers and others involved in flood modelling and flood risk management, particularly those who would like to learn the latest tools and techniques in flood risk management.

### SCHOLARSHIP

A limited number of Erasmus Mundus Scholarships to cover tuition, living and travel expenses are available on a competitive basis. Applications from EU as well as non-EU candidates are welcome.

Tuition (for non-scholarship holders): € 8000 (per year)

#### PREREQUISITES

A BSc degree in civil or environmental engineering or in geosciences, environmental sciences, limnology, oceanography, geography, geology, natural resources, or a similar subject. BSc students who finishes their BSc by July 2011 are welcome to apply.

### APPLICATION

Interested candidates may apply online at http://www.floodriskmaster.org/. The deadline for application is 31 May 2011 (if you need visa)/ 15 July 2011 (if you do not need visa). The deadline for application for Erasmus Mundus scholarship is 31 January 2011.