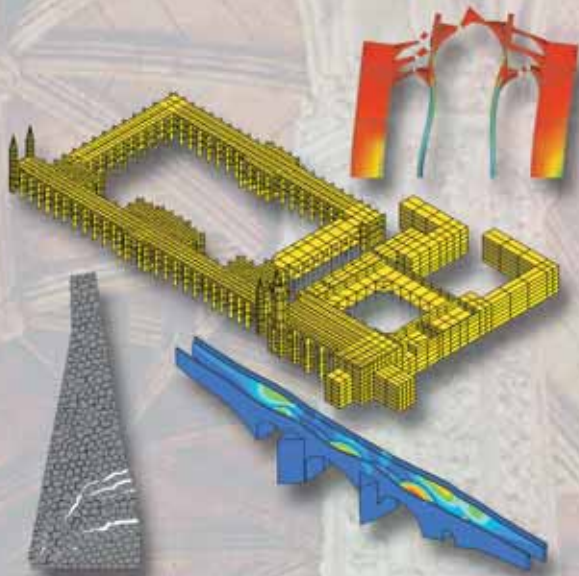
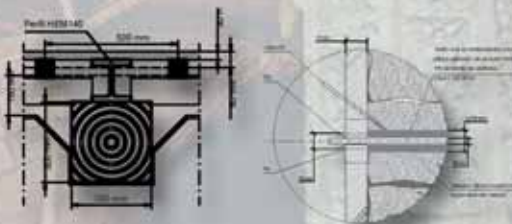




Testing, Surveying and Monitoring



Advanced Structural Analysis



Design and Remedial Measures

LANGUAGE

The language of instruction and the language of examinations is English. Courses (including course material), examinations and study counselling are available in English only. Students are also encouraged to attend one national language and culture course (Portuguese, Spanish, Italian and Czech).

APPLICATION DEADLINE

The academic year starts in October. The opportunities to apply are grouped into three calls. Third-country students wishing to attend the MSc and apply for an Erasmus Mundus scholarship should submit their applications no later than January 31. Students from any nationality wishing to attend the MSc and apply for a Consortium scholarship are asked to submit their applications up to May 31. A third deadline is due by September 10. The submission is to be carried out electronically at <http://www.msc-sahc.org/> and secretariat@msc-sahc.org. All documents to be submitted in English, with the exception of original documents in Portuguese, Italian, Spanish or Czech.

TUITION FEE AND SCHOLARSHIPS

The admission fee is 8000 Euro. However, a number of scholarships for third-country students (non-EU, non-EU candidate countries and non-EEA-EFTA), currently of 21000 Euro, are available. Furthermore, a number of additional scholarships from the MSc Consortium, currently of 14000 Euro, are open to students from any geographical origin.

FURTHER INFORMATION

For further information, please contact the MSc Secretariat at secretariat@msc-sahc.org or visit the Master's webpage at <http://www.msc-sahc.org>.



Advanced Masters in Structural Analysis of Monuments and Historical Constructions



Erasmus Mundus



PARTNERS

The Advanced Masters in Structural Analysis of Monuments and Historical Constructions (MSc) is a Joint European Master Programme on the conservation of architectural heritage structures, aiming at producing an international platform of top level competence. The higher education institutions involved in the MSc (consortium institutions) are:

University of Minho (Guimarães, Portugal)
Czech Technical University in Prague (Prague, Czech Republic)
Technical University of Catalonia (Barcelona, Spain)
University of Padova (Padova, Italy)

The Institute of Theoretical and Applied Mechanics of the Academy of Sciences of the Czech Republic is also involved as Satellite participant.

The relationship of the partners with the ICOMOS International Scientific Committee for Analysis and Restoration of Structures of Architectural Heritage ascertains the possibility of benefiting from the contact and collaboration of experts from over the world, taking into consideration their experience, and world-regional conservation problems and practices. The partnership includes the Editors of the International Journal of Architectural Heritage and the Organizers of the series of conferences on Structural Analysis of Historical Constructions (1995-2006). The partners are also involved in relevant technical committees and enjoy a proven record of R&D&I external funding and top professional experience on aspects such as inspection, diagnosis, monitoring, structural analysis and restoration of world architectural heritage.

MOTIVATION AND OBJECTIVES

The building industry and tourism represents about 15-20% of the GNP in Europe. As the built environment ages, conservation of existing buildings and infrastructure is receiving more and more attention, reaching an average value of 1/3 of the market in Europe. The MSc will address

the issue of existing buildings, but with a focus on buildings with cultural value. Being monuments and historical centres main attractors for tourism, their conservation is not only a societal demand but also an economical one.

Europe is a world leader in the generation of knowledge, methodology and technology applicable to the conservation and restoration of the architectural heritage. The objective of the MSc is to offer an advanced education programme on the engineering of conservation of structures, with a focus on architectural heritage. The Master combines the diversity of expertise at leading European universities in the field, offering education oriented to a multidisciplinary understanding of structural conservation through the involvement of experts from complementary fields. Students face top level structural analysis knowledge in a research oriented environment, with close cooperation with the industry and a focus on problem solving.

The Master will provide a cross-disciplinary education comprising engineering oriented issues (experimental techniques, computer modelling, structural analysis, seismic behaviour and structural dynamics, repairing and strengthening techniques, surveying, monitoring, etc.) with more general methodological or philosophical concepts (history of construction and restoration, principles and methodology of conservation, etc.).

The main focus of this training is the application of scientific principles in analysis, innovation and practice of conservation of monuments and historical constructions worldwide. The course will combine the very recent advances in research and development with activities oriented to practical applications. In turn, the course will pay significant attention to the regional differences shown by the architectural heritage and historical construction techniques within Europe or at World scale.

PROGRAMME STRUCTURE AND CONTENT

The MSc has duration of 12 months and is held on a rotating basis among partners. Coursework is concentrated in two countries each year and dissertation work is divided

by all involved Institutions. It is expected that students carry out the entire coursework in one location and the dissertation in another location. For 2007/2008 and odd years, the coursework will be held in Portugal and Czech Republic. For 2008/2009 and even years, the coursework will be held in Italy and Spain. The study programme is composed of eight units, with six sequential units, one unit project-based and one dissertation. The units are as follows:

SA 1: History of Construction and of Conservation
SA 2: Structural Analysis Techniques
SA 3: Seismic Behaviour and Structural Dynamics
SA 4: Inspection and Diagnosis
SA 5: Repairing and Strengthening Techniques
SA 6: Restoration and Conservation of Materials
SA 7: Integrated Project
SA 8: Dissertation

Units SA 1 to SA 6 are arranged as a mix of theory and application, in a context of a project-led education. The Integrated Project is a truly project-based course that includes a mini group project to solve a real engineering problem, with site visits, and the preparation of a proposal work plan for the dissertation. The Dissertation aims at developing research and/or professional competences in the field of conservation and restoration of architectural heritage structures.

The degree awarded is a Master's degree, provided as a double degree from the institutions involved.

ADMISSION REQUIREMENTS

The admission requirements for students wishing to enrol in the Master Course are a good quality degree in Civil Engineering or equivalent qualifications. Typically, students are expected to have a higher education degree with four or five years, at the time the Master starts. Admission is subjected to the approval of the Managing Board, and is based upon the applicant's ability and motivation, recommendation letters and language skills.