INTERNATIONAL PHD COURSE



"Processes, Materials And Constructions In Civil And Environmental Engineering ..."

SEMINAR

<u>"WAVE ENERGY UTILIZATION: A</u> <u>REVIEW OF THE TECHNOLOGIES"</u>

By Prof. Ing. António Falcão

Instituto Superior Técnico Universidade Técnica de Lisboa – Portugal

> Faculty of Engineering Via S. Marta, 3 Florence, Italy

> > April 18th 10:00-13:00 April 19th 10:00-12:00 Room 111

Abstract

Sea wave energy is being increasingly regarded in many countries as a major and promising resource. The seminar deals with the development of wave energy utilization since the 1970s. Several topics are addressed: the characterization of the wave energy resource; background, with especial theoretical relevance to hydrodynamics of wave energy absorption and control; how a large range of devices kept being proposed and studied, and how such devices can be organized into classes; the conception, design, model-testing, construction and deployment into real sea of prototypes; and the development of specific equipment (air and water turbines, highhydraulics, electrical linear pressure generators) and mooring systems.



The goal of the geo-engineer scientific International Doctoral Course on "Processes, Materials and Constructions in Civil and Environmental Engineering ..." which are sponsored by the Deutsche Forschungsgemeinschaft (DFG) since 01.01.2002 in co-operation with the University of Florence is the deal with relevant subjects of the analysis, monitoring, control and reduction of the induced risks by the natural calamities and by human actions on the built environment.



The seminar is offered for the International PhD Course, but other participants are welcomed.

The Coordinator of the PhD Course Prof. Eng. C. Borri The Scientific Secretariat of the Phd Course Dr. Eng. L. Cappietti, <u>cappietti@dicea.unifi.it</u>