



Department of Automatic Control & Systems Engineering  
would like to announce the following seminar:

## **Rotorcraft Control and Stability**

***Speaker:* Dr. Maria Tomas Rodriguez**  
**Imperial College London**

**Wednesday 29th November 2006**  
**at 14:10**

**Location: Henry Stephenson Building LT1**

Coffee and Biscuits will be served afterwards.

***Abstract:*** The main idea behind this project is to study the stability problems which occur during helicopter flight due to unstable dynamics and aerodynamics effects. The main aim is to design a control system to prevent (or correct) them as in many occasions these instabilities are the main reason of accidents. It is well known that under certain flying conditions, helicopters can exhibit very complicated dynamic behavior and aerodynamics effects play an important role in the performance of the rotorcraft during flight. Different types of accidents that apparently do not involve human errors or external factors have been reported by the authorities over the last fifteen years. These are believed to have been based on aerodynamical and dynamical effects and couplings. Even though this type of accident has been known for a long time, it has proven remarkably difficult to obtain a complete understanding of the mechanisms involved and the dynamics behind it due to its highly nonlinear behaviour.