



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

Model-Free Adaptive Control

Speaker: Prof Zhongsheng Hou

**School of Electronic and Information Engineering
Beijing Jiaotong University, China**

**Tuesday 18th July 2006
at 14:10**

Location: Sir Henry Stephenson Building LT2

Coffee and Biscuits will be served afterwards.

ABSTRACT

Model-free control (MFC) is a control paradigm which allows a controller to be designed using input and output data of a controlled plant only. MFC has advantages of not requiring the mathematical model of a controlled plant, not requiring prior knowledge about the controlled plant, and not requiring open-loop identification process and training process. It supports the design of a controller for a class of plants and offers a potential of being able to handle changes in underlying system dynamics. The control systems design based on the Dynamic Linearization Technique (DLT) is called model-free adaptive control (MFAC). This talk will focus on the DLT and the MFAC design based on the DLT. This talk will also introduce the applications of MFAD to non-linear and time varying systems and various real-world applications, including Injection moulding process control, Linear Motor Control_brushed permanent DC linear motor, water-level control of a drum boiler steam generator, etc.