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

Exact and Approximate Linear System Identification

By

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Time: Monday 22 September 2008
at 12.00am

Location: Henry Stephenson Building LT2

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Abstract: We treat the following exact identification problem: given a finite time series, find the least complex (minimal number of input and state variables) linear time-invariant system that fits the data. Algorithms aiming at different representations of the system are presented and related to the class of subspace identification methods. The approximate identification problem considered is defined as minimization of the distance from a given time series to a trajectory of a linear time-invariant system, subject to the constraint that the system is of a bounded complexity. There is no a priori distinction between input and output variables and the approximation error is not assumed to be a stochastic process.