



The
University
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The Department of Automatic Control & Systems Engineering
is pleased to announce the following seminar:

Generalised Decomposition

Speaker: Mr Ioannis Giagkiozis

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Wednesday, 28 November 2012 at 14:00

Location: Sir Henry Stephenson Building, Lecture Theatre LT02

ABSTRACT

Decomposition based algorithms seem promising for many-objective optimisation problems. However, the issue of selecting a set of weighting vectors for more than two objectives is still unresolved and / ad-hoc/ methods are predominantly used. A novel concept, which is still called generalised decomposition, can help resolve this issue.

Generalised decomposition provides a framework with which, the decision maker (DM) or the analyst, can guide the underlying evolutionary algorithm toward specific regions of interest or the entire Pareto front with the desired distribution of Pareto optimal solutions. Additionally, it is shown that generalised decomposition simplifies many-objective problems by unifying the three performance objectives of multi-objective evolutionary algorithms - convergence to the PF, evenly distributed Pareto optimal solutions and coverage of the entire front - to only one, that of convergence.

Refreshments available following the talk in D10, Amy Johnson Building