The University Of Sheffield.

Automatic Control and Systems Engineering

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

Programming Robotic Agents: A Multi-tasking Teleo-Reactive Approach

Professor Keith Clark
Professor of Computer Science
Imperial College London

Wednesday, 8 June 2016 at 14:00
LT02, Sir Henry Stephenson Building

Abstract

We present a multi-threaded robotic agent architecture in which the concurrently executing tasks are programmed in TeleoR, a major extension of Nilsson's Teleo-Reactive Procedures (TR) rule language for robotic agents (see http://teleoreactiveprograms.net)

TeleoR extends TR in: being typed and higher order, having a typed higher order logic and functional programming language, QuLog, for encoding declarative knowledge, having extra forms of rules and actions for concisely expressing improved behavioural knowledge, having task atomic procedures to control the sharing of multiple robotic resources by an agent engaged in several concurrently executed tasks. Its multi-tasking use is illustrated in the videos accessible from www.doc.ic.ac.uk/~klc. In one a Baxter robot concurrently engages in two block configuration tasks using both arms in parallel whenever possible.

Light refreshments will be served in the
Foyer of the Sir Henry Stephenson Building following the seminar