SPEAKER:

Dr. Colin Johnson

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University of Kent in Canterbury

DATE:

Wednesday the 5th of October 2011

TIME:

15:15 - 16:15

LOCATION:

Heriot-Watt University, Earl Mountbatten Building; room 3.02

TITLE:

Doing More with Less: Improving the Performance of Genetic Programming

ABSTRACT:

Genetic Programming (GP) is a powerful technology for the automatic creation of computer programs and other forms of executable structures (circuits, algorithms, protocols). GP consists of the application of biologically-inspired search techniques, such as genetic algorithms, to the search space of computer programs. In this talk I would like to talk about three ways in which we can improve the performance of GP:

(1) Treating each individual as a source of multiple programs.

(2) Preventing crossover between parents that produce children that are semantically identical to the parent.

(3) Doing multiple runs of GP where each run builds on the successes of the previous one.