CSCI3405

Coursework
Deadline: Noon, Friday week 29 (15th April 2005)

You are encouraged to submit it by Friday noon week 25 (18th March 2005)

Genetic Algorithm Exercise (worth 20% of the module's assessment)

You have been given a problem that you have solved using Artificial Neural Networks. You need now to reconsider the problem under the light of Evolutionary Computing, and apply this to find a **solution** for this problem.

Your task is to describe how you will find a **solution** to this classification problem using Genetic Algorithms; and to configure the problem completely so that it can be solved in such a way.

The main points you will need to address will be:

- Decide what the **solution** to the problem will be.
- Configure the GA:
  - ➔ Encode the solution as a chromosome, describe this in detail.
  - ➔ Describe in detail how to create the initial population.
  - ➔ Describe in detail how to measure fitness and with respect to what.
  - ➔ Describe in detail how each genetic operator will be applied.
  - ➔ Describe your termination criteria.

Submit a report with you problem configuration as detailed above.
Your report must also include a conclusions/reflections section in which you will reflect on what it means to solve a problem using Evolutionary Computing techniques rather that finding the solution directly.

MAG 9th Feb 2005.