PROJECT

Simulated Car Racing Controller Design

The aim of the project is to learn, or otherwise design, a controller which could be able to race for a certain number of laps on a set of unknown tracks against other controllers. In particular, the primary goal for your project is to design a controller that runs the circuits in the shortest possible time without causing damage and arriving at the first places.

You are free either to use the APIs and the Snakeoil controller provided to develop their controllers or they could develop their own solution from scratch. The only constraint was to submit a final controller that follows the same communication protocol defined in the client provided. Moreover, you are free to choose any algorithm you have studied during the course and to define the fitness function taking into account the performance of your controller.

The constraints you are subjected to are:

- the number of laps should be at least 2;
- the number of opponents in a race should be at least 8 and should include: damned 1, damned 3, damned 4, damned 5, damned 6, berniw hist 2, berniw hist 6, berniw hist 7;
- the number of circuits where to train your controller should be at least 2 among Forza, CG-Track-2, E-Track-3, Wheel-1.

The controller code and the final report should be provided at least 6 days before the exam.

In the examination, the controller will be assessed on a different circuit from those on which it has been trained.

All the information you need can be found at: http://torcs.sourceforge.net, along with a number of research papers under Research: search papers.