

Terrain Characterisation/Identification with neural networks/fuzzy logic

Abstract

Determining the characteristics of terrain over which a vehicle is travelling (friction, type, roughness, etc.) is becoming more important with advent of onboard systems that can be set to maximise the performance of the vehicle. This project aims to look at the possibility of determining terrain information from vehicle mounted sensors. The initial phase will be done by simulation, with the possibility of trying the algorithms developed practically if time permits.

It is expected the outcome of this work will form the basis for a paper to be published in a journal or conference.

Another possibility is to improve/modify the suspension testing software for the whole vehicle test facility.

Requirement

Student: familiarity with Matlab and Simulink, and some of the appropriate toolboxes.

David Purdy, 19/10/09