Summer 2016 Project 07/11-08-12

Electrical and Computer Engineering Department, Ruting Jia

Solving real world problems by using Intelligent Control Techniques

GOAL: In this summer experience, students will be introduced to a class of intelligent control techniques that use various artificial intelligence computing approaches like neural networks, fuzzy logic, evolutionary computation and genetic algorithms.

OUTCOMES: 1. it is intended to have students learn different intelligent control techniques, learn the fundamentals of several software packages. 2. Students will choose a real world problem such as cruise control of car and apply the intelligent control technique learned through the summer project. 3. Several software packages will be utilized, such as: Matlab(Toolboxes that apply), Simulink computer simulations, Labview computer simulation.

ADVANCED GOAL: Implement the complete system model as well as the designed intelligent controller in Simulink and conduct system performance analysis.

PREREQUISITES: Be a participant of the AIMS2 program.

 At the end of the summer experience, students will document their experience:
1. Understanding the challenges faced by elementary schools on supporting technology
2. Designing, implementing and testing a solution for a real world problem.