Embedded Controls and Mechatronics

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Author Information

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Course Details

Description

This is an elective course for undergraduate seniors and graduate students. The course is comprised of both analytical and laboratory components and includes a final project. The course content includes four components: modeling, analysis, contol design, and hardware implementation. Two embedded targets are used for hardware implementation: Arduino development board and Microchip dsPIC. Simulink-based target tools are used for programming these embedded processors.

Original Course Documents

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Lectures

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Labs

- Arduino
  - [Installation Instructions for Arduino](#)
  - [User Guide for Labs with Arduino](#)

- [Arduino Support Files](#)
  - dsPIC
      - [User Guide for Labs with dsPIC](#)
      - [dsPIC Support Files](#)

Handouts

  - [Guidelines for Controller Designs Using State Space Method](#)
  - [Moments of Inertia](#)

Tests

Quizzes

  - [Quiz 1](#)
  - [Quiz 1 Make-up](#)
  - [Quiz 2](#)

Exams

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