COURSE DESCRIPTION

Real-time digital signal processing using DSP processors: architecture, instruction set, sampling, filtering, fast Fourier transform, and other applications.

TEXTBOOK

Not required.

Software

MATLAB, Code Composer Studio

PREREQUISITE

ECE 351 (Linear System Theory II)

GRADING POLICY

Projects 70% + / - Grading is used in this course
Final 30%

PROJECTS AND EXAM POLICIES

1) In-class projects are done in group with two or three students.
2) Each student should turn in an individual project report after the project is finished,
2) OPEN BOOK, OPEN NOTES for final.
5) Zero tolerance for PLAGIARISM.

MATERIALS COVERED IN THE CLASS*

- Introduction to real-time DSP and the development system
- Architecture and instruction set of TI C6x processor
- Finite impulse response filters (FIR)
- Infinite impulse response filters (IIR)
- Fast Fourier transform (FFT)
- DSP applications

* Subject to change