

Digital Signal Processing intro

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www.kstio.com/dsp

Introduction

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Lecture's goals

- To give the student an overview of digital processing of various type of signals. To review the basic DSP algorithms including FFT, filtering, etc. and their application.

Course Abstract

- Digital Signal Processing aims to introduce the students to the digital processing techniques that required for their applications. Course coverage includes:
 - 1. see the website – kstio.com

Grade Breakdown

Lab reports 100%

Since each of you will submit your own report, questions about who the authors will be, in what order, and what responsibilities each will have are moot.

However you should list the name of your partner on your report since she contributed to the work.

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Unless stated otherwise, each student needs submit one lab report that demonstrates completion and comprehension of each laboratory experiment. There is to be only one report per capita (or a pair of students).

Due Date: Unless posted otherwise, Lab Reports are due by midnight on the Friday of the week after lab exercise. The deadline applies to the electronic submission.

Late reports lose 0.5 points per day. Reports more than 2 weeks late will not be accepted.

No submissions after the last day of class will be accepted.

Only .doc, .pdf, and .txt document formats will be accepted. All group members are responsible for verifying that reports are submitted correctly.

Please submit your own work. I have at my email system disposal an automated plagiarism identification feature.

The Lab Report should have the following sections:

- 1. Abstract
 - a. brief summary of the lab and results
 - b. In practice researchers use abstracts to understand the key aspects of a paper without having to read the rest of the paper detail. So make sure you concisely communicate everything you felt was important here.
 - c. Always write the abstract last.
- 2. Introduction
 - a. exercise purpose and background information
- 3. Theory (when appropriate)
 - a. Include any and all calculations/equations you performed during lab, particularly the
 - calculations needed to find the theoretical results.

- **The Lab Report should have the following sections:**

- 4. Main Body
 - a. Equipment settings and procedures
 - i. The amount of detail you provide on procedure will mainly be for your own benefit. You will have the opportunity here write a personal reference that you can use for future lab exercises.
 - b. Experiment Results (may also be a separate section)
 - i. Please insert ALL figures and screen shots and any other Results in your report. This includes data above and beyond what is specifically requested in the Lab ReadMeFirst Document. Statements to the effect that you should include a result in the lab report are intended as REMINDERS that these items are particularly important, and not intended to exclude any of the other results because a similar statement is not contained in the ReadMeFirst file. Each item should include some title and/or caption describing the figure's contents. Data without explanation is worthless in the real world. For this reason, this is the most common reason students lose points on their reports. It is expected that you will document all of your lab results.

The Lab Report should have the following sections (cont):

- 5. Discussion and Suggestions
 - a. Answer all questions posted in the lab instructions.
 - b. There needs to be at least enough discussion of the lab exercise to i. convince the grader you understand what you were doing and ii. to explain to someone unfamiliar with the exercise what you learned and accomplished.
- 6. Conclusion
 - a. Write a take-away statement for the reader in a couple of sentences.
- 7. Acknowledgements
 - a. Acknowledge what group member contribution. If someone is not pulling their weight make a note of it here.
- 8. References (when appropriate)