

EE 491 Weekly Report DEC15-17 Week 22 (10/20/15-10/26/15)

Advisors: Dr. Ravi Hadimani and Neelam Prahbu **Client:** Iowa State University
Members (roles): Marion Okoth (Team Leader), Elizabeth Clarkin (Website) and Matthew Mulloy (Weekly Reports)
Project Title: Magnetic Sensor Design.

Weekly Summary

The main goals this week were to reach conclusions on current work and begin preparations for instructor and final presentations.

Meeting notes:

10/26 Group Meeting with Advisors

Duration: 60 min **Members Present:** All

Purpose and Goals:

This week's goal was to finish evaluating current progress and discuss instructor presentation.

- Instructor Presentation
 - Design document
 - Project Plan
- Marion
 - Multisim Results
 - Causes of resonances
 - Material imperfections
 - Reflections due to load impedances
 - Frequency spectrum of transient analysis from Multisim
 - Load voltage
 - Frequency response
 - FFT
 - More noise if line not matched to source
 - Lot of resonances in frequencies we operate with in circuit used

Pending issues

1. Semester documents
2. Semester goals

Individual Contributions (this week)

Matthew Mulloy: Attended the meeting, material preparation, weekly report (4.5 hrs.)

Elizabeth Clarkin: Attended the meeting, ADS, Chebyshev Filter (7.5 hrs.)

Marion Okoth: Attended meeting, Schematic building using Multisim, Fourier analysis, Transient analysis with MatLab (7 hrs.)

Total contributions this semester

Matthew Mulloy (56.5 hrs.)

Elizabeth Clarkin (43.5 hrs.)

Marion Okoth (46 hrs.)

Total contributions for the project

Matthew Mulloy (160 hrs.)

Elizabeth Clarkin (176.5 hrs.)

Marion Okoth (136.5 hrs.)