

EE 491 Weekly Report MAY15-26 Week 3 (9/15/14-9/21/14)

Advisors: David Jiles and Ravi Hadimani

Client: Iowa State University/Magstim Company LLC

Members (roles): Jessica Staley (GUI/Leader), Saurabh Minocha (SEMCAD/Webmaster), Anqi Deng (3D Design & Modeling/Communication), Yixiao Shen (Comsol/Key concept holder)

Project Title: Design and Development of Adjustable Halo coil for Non-Invasive Treatment of Brain Disorders

Weekly Summary

The main goal of this week was to get ideas from our advisor and students who are working with him, about various goals, limitations, and difficulties we might face while working on this project. We were able to hold three meetings this week to talk with advisor, Daniel (a previous 491 student who worked on the same project) and our group members for the major issues we should focus on. We discussed important aspects of the project and decided what task each one of us will focus on. We also came up with a rough schedule for the rest of the semester.

Meeting notes

9/15 Group meeting with advisor

Duration: 60 min

Members Present: All

Purpose and Goals:

We met with our advisor and two members who are currently working on his team to talk more about TMS and what we read and understood. Our advisor and his associates explained various tasks to be undertaken throughout the semester, expanded on the goals of the project and what we should focus on based on previous years' experience and accomplishments.

Achievements:

1. Learned more about the background and interesting information about TMS.
2. Gained knowledge about various tasks that need to be undertaken.
3. Talked to our advisor and his team to know more about each task, so we could have a better understanding while deciding each member's respective area of focus throughout the year.

9/18 Group Meeting with graduate student

Duration: 30 min

Members Present: All

Purpose and Goals:

Got familiar with how the previous senior design group works and their progress. Discussed the problems encountered last year. Talked about possible fixes for the current design issues.

Achievements:

1. Got a better idea on how each the main design has been implemented and what shortcomings it has.
2. Had a chance to see the video about the working style of the Halo coil they did last year.
3. Understood what needs to be done by our team in order to make our project a success.

9/19 Group meeting with members

Duration: 60 min

Members Present: All

Purpose and Goals:

Divided up responsibilities and thought about why we would like to work on that specific area. Discussed more about our design plan. Briefly talked about needs to be done for our website. Came up with a rough draft of what needs to be accomplished and time to be followed in this semester.

Achievements:

1. Final decision of individual tasks made.
2. Created a rough timeline for the progress we should make this semester.
3. Discussed possible website designs and how to implement it.

Pending issues

1. Each member needs to talk with people involved with our individual task area, to know more about what needs to be done and how.

Plans for next week

1. Research and get familiar with the software we may use.

Jessica Staley: GUI

Saurabh Minocha: SEMCAD

Anqi Deng: Solidworks and read paper with similar helmet design.

Yixiao Shen: Comsol technical manual reading; TMS mechanical structure planning.

2. Have a basic layout for our website.
3. Have a better and more specific project plan by the end of next week.

Contributions (Individual)

Jessica Staley: communication between members and Professors, attended the meetings, gave ideas for the report, setup group drive (2.5hrs.)

Saurabh Minocha: attended the meetings, helped write the report, talked with Eric (research student currently working on SEMCAD), to know more about the software and how it is useful, did research about SEMCAD and some neurological diseases. (3hrs.)

Anqi Deng: compiled the report, attended the meetings, got familiar with the 3D modeling software Solidworks and tutorial practice, and gave ideas of the report (3hrs.)

Yixiao Shen: attended the meetings, gave ideas for the report, helped with writing the report, talk with previous people worked with this project. (3.5hrs.)

Contributions (Total)

Jessica Staley: 5 hours

Saurabh Minocha: 5.5 hours

Anqi Deng: 5.5 hours

Yixiao Shen: 6 hours