

EE 491 Weekly Report

MAY15-29 Week 1 (9/1/14-9/7/13)

Advisors: Meng Lu **Client:**

Members (roles): Wenbing Ma, Jiangxiang Zhang, Xuan Zhang (Webmaster) , Zhikai Cui (Leader), Chenyin Liu

Project Title: A high resolution two-dimensional ultrasonic detector using plasmonic crystals

Weekly Summary

This week we mainly get familiar with the process of whole project. As the beginning of senior design, we partitioned it into 5 parts, assigned a leader for each part and made a general project schedule. Besides, we discussed some more details of each part with Dr.lu's help. As a result, each of us figured out what to start with for senior design.

Meeting notes:

9/6 Group Meeting with Advisor

Duration: *100 min*

Members Present: *All*

Purpose and Goals:

- 1) Establish contact with advisor and have a meeting to discuss our project.
- 2) Find out logistical questions.
- 3) Get a brief plan for the semester.

Achievements:

We set up our goal and we feel excited to do the project, because we want to use some fancy ways.

Pending issues

- 1) Do we need to find other project if we finish the project very early?
- 2) Size of the sample holder needs to be decided according to the size of sensor array.
- 3) SDK package of devices need to be found for data analysis via MATLAB.
- 4) Need to figure out the specific instruments we will use for the project.
- 5) Lab safety training
- 6) Detective problem of the invisible laser light

Members' Schedule

All members will have a meeting with Dr Lu on Saturday.

Plans for next week

Wenbing Ma

- Labview program for Textronic Scope and motorized stage
- Optical setup

Jiangxiang Zhang

- Sensor fabrication (Plasmonic sensor and fiber tip sensor)
- Optical setup

Xuan Zhang

- Documentation and webpage
- Sample holder

Zhikai Cui

- Labview program for Textronic Scope and motorized stage
- Sensor fabrication (Plasmonic sensor and fiber tip sensor)

Chenyin Liu

- Documentation and webpage
- Sample holder

Individual Contributions (this week)

- ✓ Wenbing Ma attended the meeting and discussed about research problems. (2 hr)
- ✓ Jianxiang Zhang attended the meeting and discussed about research problems. Coordinated with CBE to obtain access to lab (Sweeny 3251). (2 hr)
- ✓ Xuan Zhang attended the meeting and discussed about research problems.(2 hr) Finished the weekly report. (0.5 hr)
- ✓ Zhikai Cui attended the meeting and discussed about research problems. Got contact with advisor. (2 hr)
- ✓ Chenyin Liu attended the meeting and discussed about research problems. Thought about the main structure of the project and made a plan about how to finish the project in due time. (2 hr)

Total contributions for the project

Wenbing Ma (2 hr)

Jiangxiang Zhang (2 hr)

Xuan Zhang (2.5 hr)

Zhikai Cui (2 hr)

Chenyin Liu (2 hr)

Simulation circuit of Project

