

EE 492 Weekly Report 3

MAY15-29 Week 5&6 2/9/2015 - 2/22/2015

Advisors: Meng Lu **Client:**

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

Project Title: Ultrasonic detector using photonic crystals

Weekly Summary :

Members try to test our equipment, and try to get the result. However, we have a trouble on water tank, because the water tank is not water proof, the water comes out from the inside of water tank. Thus, we design the new one and try to set up.

Meeting notes:

2/11 & 2/18 Group Meeting with Advisor Dr. Lu Meng

Duration: *60min*

Members Present: *All*

Purpose and Goals:

1. Members try to do the test for the light wave, and we try to get the result on both oscilloscope and on matlab.
2. Member try to make sure the lab equipment can work properly.
3. Member want to get a new water tank and make sure the water tank have no trouble for testing

Achievements:

1. Members found that the water tank made by 3d printer can not work properly.
2. Members try to use some ways to seal the part, which water comes out
3. Members try to get first try for testing, and we got a wave, which matched our prediction.

Pending issues

1. The new sample holder(water tank)is in process, we found that the new water tank should be made by other material with 3d printer.
2. Members try to do the second trial to get the new waveform.

Plans for next week

1. Members try to get different waveform in different conditions. We try to test our sensor to get different scenario, we can change the angle, inside of water and out of water
2. Members try to verify the result we currently get match the result we predicted.

Individual Contributions (this two week)

- Wenbing Ma attended the meeting(1hr), fix the sample holder (5hr) test for the light wave, and we try to get the result on both oscilloscope and on matlab.(8hr)
- Jingxiang Zhang attended the meeting(1hr), designed the new water tank and try to printer the water tank by 3d printer with the new material.(6hr) Try to get the new waveform with the new water tank(5hr)
- Xuan Zhang attended the meeting.(1hr) , fix the sample holder (5hr) test for the light wave, and we try to get the result on both oscilloscope and on matlab.(8hr)
- Chenyin Liu attended the meeting.(1hr), designed the new water tank and try to printer the water tank by 3d printer with the new material.(6hr) Try to get the new waveform with the new water tank(5hr)
- Zhikai Cui attended the meeting.(1hr), fix the sample holder (5hr) test for the light wave, and we try to get the result on both oscilloscope and on matlab.(8hr)

Total contributions for the project

Wenbing Ma (14 hr)

Jingxiang Zhang (11hr)

Xuan Zhang (14hr)

Zhikai Cui (14hr)

Chenyin Liu (11hr)