

EE/CprE/SE 492 Weekly Report 14 *MAY1622*

Date (1/26/16-2/1/16)

Advisors: Daji Qiao
Client: Halil Ceylan
Co-Advisor: Christofer Sheafe ()

Members (roles):

Shen Fu (Team Leader)
Matt Rose (Team Communication Leader)
Qichen Yan (Team Webmaster)
Darnell Melvin (Team Key Concept Holder)

Project Title: Wireless Embedded Roadway Health Monitoring Network

Meeting notes

Monday 2/1

- Find a new antenna with high efficiency at our operating frequency - 490 MHz
 - Also needs to be smaller than VJ 6040.
- Think more about unit testing and how to test that a certain piece of the system performs as expected
- Get sensor choices from civil department
 - Keep brainstorming ways to shield circuit from harsh concrete environment while exposing the sensor so it can take accurate readings
- Order parts and spares
 - Zigbee antenna for base station
 - Antenna for nodes
 - RLC components for RF array
- Begin microcontroller software

2/1/2016 Group Meeting with Advisers

Duration: 1 Hour

Members Present: *ALL*

Purpose and Goals:

After an extended period with no meetings we showed our progress to the advisers in hardware and software. We finished the digital circuit diagram and are moving forward with PCB design. Finding a smaller antenna will help us create a smaller circuit.

Weekly Summary

This week was dedicated to working hard on PCB design and software for the base station and smartphone. We found a set of software libraries built by TI for the CC1310 that will really help with development.

Pending issues

None

Plans for next week

Next week we plan to have more parts and assembled the breakout test board to start debugging the microcontroller and putting our code on it. The base station -smartphone communication should be done.

Budget

N/A

Next Meeting

2/4/2016 2:00 PM, Coover Senior Design Lab

Hourly Contributions

Team (together): 5 hours

Matt: 4 hours

Shen: 4 hours

Qichen: 4 hours

Darnell: 4 hours