

EE 491 Weekly Report **MAY15-23** **Week 2 (9/8/14-9/14/14)**

Advisors: Daji Qiao

Client: Halil Ceylan

Members (roles): **Brandon Wachtel, Tyler Fish (Team Communicators)**

Mitch Balke (Team Leader)

Brandon Maier, Johnnie Weaver (Web Masters)

Trieu Nguyen, Christofer Sheafe (Key Concept Holders)

Project Title: Wireless Embedded Roadway Health Monitoring

Weekly Summary

Our group focused mainly on individual research to later discuss as a group and as preparation for our weekly meeting with our professors. Awaiting to receive datasheets for the sensors from our advisors as well as contact information for the Civil group that we will be working with.

Meeting notes:

We need to look into different types of batteries for the system to run on, possibly Nickel Cadmium. Look into low power microcontrollers. Email Daji for Civil professor contact information. Maximum distance between sensors will be at most 10 feet. Think about packaging data for transmission to save power from starting up antenna. Look into RF for recharging circuit and find a frequency we should use (preferably low frequency). Talk to concrete people to see if we could connect the sensors directly to the rebar. Look into IEEE Xplorer for transceiver and attenuation of radio waves through concrete. Find the frequency band for our communication network. Find out if we can test magnetic recharging systems (rebar, concrete, air). Create a System Level Design (SLD) for the project.

9/5 Group Meeting with Advisors

Duration: 30 Minutes

Members Present: All

Purpose and Goals:

Meet with our advisors and give them some preliminary ideas that the group has discussed about how we should tackle the project. Received feedback about what we should continue to look into as well as new ideas that we should research.

Pending issues

None

Plans for next week

Create a system level drawing for the project.

Look into the different ways we will be charging our devices.

Individual Contributions(this week)

Johnnie Weaver: Attended Advisor Meeting (0.5hr),
attended group meeting (1.25hr), individual research
(1hr)

Brandon Wachtel: Attended Advisor Meeting (0.5hr),
attended group meeting (1.25hr), individual
research (1hr)

Tyler Fish: Attended Advisor Meeting (0.5hr),
attended group meeting (1.25hr) individual
research (1hr)

Mitch Balke: Attended Advisor Meeting (0.5hr), attended

group meeting (1.25hr), individual research (4hr)
Brandon Maier: Attended Advisor Meeting (0.5hr),
attended group meeting (1.25hr)
Trieu Nguyen: Attended Advisor Meeting (0.5hr), attended
group meeting (1.25hr), individual research (1hr)
Christofer Sheafe: Attended Advisor Meeting (0.5hr), attended
group meeting (1.25hr)

Total contributions for the project

Johnnie Weaver: 4.75 Hours
Brandon Wachtel: 4.75 Hours
Tyler Fish: 4.75 Hours
Mitch Balke: 6.75 Hour
Brandon Maier: 2.75 Hour
Trieu Nguyen: 3.75 Hour
Christofer Sheafe: 2.75 Hour