EE 491 Weekly Report   **MAY1633   Week 6(10/6/15-10/13/15)**

Advisors: Dr. Daji Qiao, Dr. Long Que   **Client:**

Members (roles):   Schilling, Anthony (Team Leader)

Bennett, Tyler (Concept Keeper)

Li, Liuchang (Web Master)

Lin, Haisong

Tian, Yang(Communication Leader)

Time: Oct 12th 2015

Project Title: Portable Nutrient Data Collection System Based on MEMS Sensors and Smartphone technologies

Summary and Accomplishments

The main goal of this week is to compare and discuss options of microcontroller. To make it can be an interface with other parts, possible compatible issues are also considered by each group member from different subsystems.

WHO	WHAT	HOURS
Anthony	▪ Research interface between Bluetooth and phone app (2) ▪ Make the subsystem project plan (1)	3
LiuChang	▪ Research the background of TI CC2560 (1.5) and how it work with MSP430 ▪ Compare the experiment tools of CC2560 and MSP430 (2) ▪ Update project website and upload files (0.5)	4
Haisong	▪ Purchase electronic component voltage boost circuit (2.5) ▪ Research the connection between microcontroller and the booster circuit (1)	3.5
Tyler	▪ Screen sketch of the app (2) ▪ App diagram (1) ▪ Research the interface issues between app and microcontroller (1)	4
Yang	▪ Research background of the CC2540 (SoC) about features and development kit(2) ▪ Compare the experiment tools of CC2540 (2)	4

Meeting notes:

1. Introduction about the processer CC2540 (System-on Chip) and CC2560 (Bluetooth controller) with MSP430 (microcontroller) from power, sizes, hardware compatibility, development kits (free vs. paid) and prices.

2. Dr. Qiao suggested that the group can compare possible Bluetooth chips by find the ZigBee version, companies made ZigBee version chips probably have Bluetooth version chips.

3. Data from microcontroller format was suggested by interface team that it can be transferred at real time, since there is no clear statement about extra SD card can work with processor and the current storage of the SD card may not be enough to generate large amount of data.

Pending issues

1. Do more research possible Bluetooth version processors
2. Do more research about the development tools and software of the processors

Plans for next week

1. Build the circuits until the purchased components were arrived.
2. List a comparison table that includes multiple chips from different companies
3. Research more about the development software and tools and their price.