EE 492 Weekly Report **MAY1633 Week 3(1/28/16-2/3/16)**

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: Jan 28th 2015

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

Summary and Accomplishments

We had a group meeting with EE492 adviser George and discussed some potential issue and concerns on Jan 27th. There are some debugging process on the micro discharge device components and Interface connection.

WHO	WHAT	HOURS
Anthony	▪ Build the connection of Bluetooth chip and cell phone ▪ Test to transform sample data from spectrometer	3
LiuChang	▪ Do the research about the USART and RS232 connection and choose the correct transceiver chip ▪ Keep testing the PCB design	3.5
Haisong	▪ Debugging components of micro discharge device ▪ Test the transformer and find out the manual of the transformer is wrong.	3
Tyler	▪ Make a simple prototype for the cell phone app ▪ Do some research about the data base	3
Yang	▪ Do some availability research about how to use USART transforming method	2.5

Meeting notes:

1. Meeting with George
    1) Power consumption issue: there will be large voltage generated by the capacitor, current need to be considered the consumed power
    2) The component of the PCB design need to be tested and purchased, so far the component type is surface mount.
    3) GPS test is necessary because the GPS of Android phone is not reliable enough.
    4) Next meeting, market study, technical challenge, debugging experience and coherent test need to be completed.
2. Meeting with Dr. Qiao
    1) Demonstrate the process of subsystems
    2) Make a draft plan for the next week: the connection need to be build and tested; more tests should be applied to PCB design.

Pending issues

1. Anthony is working on the Bluetooth connection between the cell phone and chip
2. Tyler is working on the app skeleton and adding more components.
3. Haisong is working on replacing the transformer
4. Liuchang is working on the PCB design of the board and the interface between the UART and RS232
5. Yang is working on data transforming from spectrometer to SAM21 MCU.