
EE / CprE / SE 492 - Bi-weekly Report #7

SDMay18-41

Free Market P2P Energy Trading and Analytics

Client: Sodima Solutions

Adviser: Goce Trajcevski

Team Members/Role:

Arun Sondhi: Embedded Engineer/Hardware-Software Interface Lead

Alec Dorenkamp: Software Engineer (back end)

Noah Eigenfeld: Software Engineer (front end)

Brendon Geils: Software Engineer/Technical Lead

Jack Myers: Hardware Engineer/Project Manager

Joe Staudacher: Hardware/Power Engineer

Weekly Summary

We finalized the prototypes for both the hardware and software sides of the project. Any major remaining bugs were eliminated. We ran extensive tests on the prototypes and recorded demo videos. Our final focus was directed towards the project documentation and project poster.

Accomplishments in past two weeks:

Arun:

- Resolved issues with retrieving user data in the mobile app.
- Resolved server connection issues with authenticating user requests.
- Contributed to the Final Report and Final Poster

Alec:

- Completed data download implementation
- Contributed to the Final Report and Final Poster

Noah:

- Final polishing and testing of Location/Map functionality
- Performed functional tests for account creation and configuration
- Contributed to the Final Report and Final Poster

- Assisted Jack in smart meter display software and recording smart meter demo video

Brendon:

- Built Marketplace to allow purchasing and selling of energy
- Worked on final report and poster

Jack:

- Debugged and fixed connection issues with data acquisition board
- Worked with Noah to integrate the meter display software with the data displaying software
- Filmed a demo video for the presentation
- Took photos of completed boards for the poster, presentation, and report
- Updated system design and testing sections of the report

Joe:

- Resoldered components on the power board and retested board functions
- Updated system design, design alternatives, and deliverables sections of the report
- Ordered and received enclosure box for the PCBs and display

Pending Issues

- Power board needs to be repaired
- Polish the final changes on the poster
- Report and presentation need to be done by the end of the week

Individual Contributions

Team Member	Contribution Summary	Bi-Weekly Hours	Total Hours (Semester)
Arun Sondhi	Resolved issues with retrieving user data in the mobile app. Resolved server connection issues with authenticating user requests. Contributed to the Final Report and Final Poster	15	103
Alec Dorenkamp	Completed data download implementation and contributed to the Final Report and Final Poster.	15	120
Noah Eigenfeld	Polished Location and Map functionality; worked on smart meter display with Jack; recorded smart meter demo with Jack; contributed to Final Report and Poster	29	105

Brendon Geils	Built marketplace. Finalized Report. Worked on final report.	10	110
Jack Myers	Made final revisions to data acquisition board and assisted in testing the power board. Worked on final documentation (poster, report, presentation)	20	144
Joe Staudacher	Finalized power board and stored components in the PCB enclosure. Worked on final documentation	20	100

Plan for coming weeks

Hardware team:

- Make final changes to all boards and film demo videos for presentation

Software Team:

- Double check software integration and film demo videos for presentation.

Arun:

- Finalize mobile related aspect of the Final Report
- Implement an area chart on the dashboard of the mobile app

Alec:

- Finish documenting all software tests and components, and film a software demo.
- Complete, review, and revise the final report and presentation.

Noah:

- Update all necessary diagrams and visuals to reflect final product
- Finish documenting software tests for functionality that I developed
- Film web application demo with Alec and Brendon
- Finalize presentation materials and final report

Brendon:

- Finalize report
- Finalize presentation

Jack:

- Provide Joe the materials to get the power board working and ready to demo
- Finish documenting all hardware related components and continue to put together the final documentation

Joe:

- Complete another iteration of the power board and get it in working state
- Create a demo of the functional power board
- Finish all documenting and prepare for the presentation