
sdmay19-04: Open-Source Prototyping of 5G Wireless Systems for Smart Ag, Autonomous Veh
Week 9 Report
November 10 - December 23

Team Members

Anthony Benson — *Chief Engineer: OAI Simulations*

Hye-Sung Moon — *Chief Engineer: Hardware Systems/SUMO Simulations, Client/Adviser Liaison*

Jaime Zetina — *Engineer: Hardware Systems Testing, Report Manager*

Jared Gorton — *Engineer: Software Systems Testing*

Khanh Luu — *Chief Engineer: SUMO Simulations, Client/Adviser Liaison*

Ted Miller — *Engineer: Software Systems Testing, Meeting Scribe*

Summary of Progress this Report

1. We have continued to review PRKS, UCS, and CPS to complete project documents, and further our progress in our project.
 2. Fixed areas with issues pointed out by the initial grading.
 - a. We have resubmitted weekly reports to better represent our work.
 - b. We have revised Project plan to better meet course requirements while keeping in the constraints of our project.
 - c. We have revised our document design after discussing its short comings with our adviser.
 3. We have requested support from ETG.
 - a. After installing new operating systems to support OAI and add-on packages that OAI and SUMO simulations need to function, we have pushed our personal machine to their limits and need additional computing power.
 - b. ETG has setup a server with our specifications in order to house OAI and SUMO.
 4. We have successfully installed OAI
 - a. We have successfully run the basic simulations using OAI.
 - b. We have simulated one eNB and UE.
 5. We have made our presentation slides.
 6. We have researched and gained understanding of the hardware to be used.
 - a. We will use the USRP B210 SDR as our radio device capable of transmitting and receiving short- and long-range transmissions.
 - b. Antenna we will use is the vert 2450 a dual band, omni-directional vertical antenna.
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Pending Issues

- 1) We need to research further into OAI (code)
 - 2) We need in integrate SUMO into OAI.
 - 3) We need to submit our reworked assignments
 - 4) Developing CPS algorithm
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Plans for Upcoming Reporting Period

- 1) Finalize project plan and design document.
 - 2) Complete weekly reports
 - 3) Build our ETG server to the specification OAI need to operate. Integrate SUMO on the server.
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Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Anthony Benson	Revised design document with team	2	71
Hye-Sung Moon	Working on Project Plan and Design Document. We finalized the details on our plan and goal, also provided the detailed hardware and software specifications.	10	118
Jaime Zetina	Have participated in the group meetings working on design document and project plans. Maintained corresponding trello board cards. Coordinated with the ETG office to receive a server where we can run simulations with out the limitations we have with our current machines.	12	112
Jared Gorton	Meet with team (Sunday) to improve design document. Meet with team (Tuesday) to continue improving design document.	4	72
Khanh Luu	Meeting with the group to finish the Design Document V2. Update Design Document on our web page.	3	73
Ted Miller	Went to the group meeting on Sunday and worked on the design document. Had an additional meeting on the design document and worked on different areas of it. Worked and maintained the trello board. Looked into the code of OAI to try to find where the editing has to happen. Did some research on the OAI website.	9	105

Gitlab Activity Summary

Nothing to report.