

sdmay19-04: Open-Source Prototyping of 5G Wireless Systems for Smart Ag, Autonomous Veh

Week 13 Report

February 9 - February 15

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

- Earlier this week we received more resources for our project from Mr. Li. He is a friend of our adviser. The contents of the resources included sample code of OAI that might be useful for the OAI team in exploring the code. Secondly the resources included some SUMO source code that has been helpful in making progress in the simulation of SUMO in Ubuntu along with the importation of the Ames maps.
- We had our weekly meeting.
 - o The OAI team discussed some of the methods they are contemplating to move forward with in the designing of the CPS algorithm for the OAI. They have been working to understand the OAI code and see where they are able to make changes to support our goal of integrating CPS algorithm into OAI.
 - o The SUMO has had many delays due to server issues, however, has made progress in installations and step by step getting closer to importing Ames map.
- We did not meet with our adviser this week because we felt we did not have any updates for him nor questions at the time. We sent emails keeping him informed with our progress.

Pending Issues

- 📎 Understanding the OAI source code, OAI reference code, and beginning to manipulate it.
- 📎 CPS algorithm
- 📎 SUMO simulation and exporting 100 vehicle data dynamics.

Plans for Upcoming Reporting Period

- 📎 Make progress with CPS algorithm
- 📎 Simulate SUMO

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
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Anthony Benson	Attended group meeting to discuss software structure. Continued studying UCS OAI implementation.	10	94
Hye-Sung Moon	SUMO server is back online, we start reinstalling sumo on the server Access denied from the server to implement the specific command to import the map, we emailed to the ETG. Looked into a codeworks of SUMO to generate 100 vehicle	10	156
Jaime Zetina	reinstalling sumo to the ETG server. Faced delays due to SUMO server being down for maintenance. Faced permission error with the ETG server, issue is pending with ETG. We are researching how to simulate 100 vehicles and export their dynamics in effort to integrate this information to OAI.	10	148
Jared Gorton	Continued to analyze OAI code to understand and begin implementation of algorithm. Began working on status presentation. Group meeting to coordinate working efforts.	8	99
Khanh Luu	Group meeting for the OAI implementation and algorithms. Examine the OAI code Verify that OAI has working correctly on server. Working with team for the Project Status Review	8	102
Ted Miller	Attended multiple group meetings. Helped design how different elements will work code wise. Worked Understanding the OAI code. Helped with different elements of the server.	10	

Gitlab Activity Summary

Nothing to report.
