sdmay19-04: Open-Source Prototyping of 5G Wireless Systems for Smart Ag, Autonomous Veh
Week 6 Report
October 13 - October 26

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/Advisor Liaison*

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

Summary of Progress this Report
1) We moved forward working with Ubuntu version 14.04. We continue working on resolving issues with the installation of OAI.
    a. The new and current issue is, a new updated version of OAI has been released, we need to make some modification to the 'ubuntu' OS to make it compatible with the newly updated version of OAI.
    b. The modification to Ubuntu is in the form of a newer version of Ubuntu, Version 16.04 with low latency kernel v14.8.15 will be the new operating system OAI will require as an operating environment.
2) We have successfully installed SUMO simulation software in to the new Ubuntu and have begun to run through the basic functions.
    a. We have verified the simulation software within the Ubuntu OS.
3) We have continued to review the UCS, PRKS, CPS.
4) We have discussed our progress with our professor, he is satisfied with our progress thus far, and let us know we should be cautious of our time schedule and keep on track.
5) We have met with PhD student Yuwei for help and guidance in installing OAI and working out any issues he may have experience with.

Pending Issues
1) OAI installation remains incomplete currently. We need to continue to coordinate with Yuwie Xie to gain further understanding of OAI simulation software and complete the installation.
2) In order to implement the CPS algorithm, we need to revisit the CPS paper and gain more understanding regarding "how does CPS leverage both UCS and PRKS".

Plans for Upcoming Reporting Period
1) Prepare to import the Ames map on SUMO for vehicles' mobility dynamics.
2) Complete the OAI installation.
3) Begin to implement the CPS algorithm over OAI with SUMO simulation.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Anthony Benson	Installed the SUMO successfully over Ubuntu, and installed the required packages and files to upload the Ames map in the future. In order to converts the online maps to SUMO, it needs to convert nodes, intersections, and physical materials on the road into corresponding codework. Verifying the OAI and check the functionality. Finished the project plan with adding specific and feasible plans that we need to follow.	10	52
Hye-Sung Moon	Installed the SUMO successfully over Ubuntu, and installed the required packages and files to upload the Ames map in the future. In order to converts the online maps to SUMO, it needs to convert nodes, intersections, and physical materials on the road into corresponding codework. Verifying the OAI and check the functionality. Finished the project plan with adding specific and feasible plans that we need to follow.	15	73
Jaime Zetina	Worked on the project plan with other members of the group. Reviewed the principles governing CPS algorithm. Worked on OAI by creating to different .ova files for the rest of the group. The first .ova file has OAI downloaded and partially installed on Ubuntu 14.02. it was determined that this version would not work for our project in the long run, so we needed to install the second .ova file using Ubuntu 16.04. Coordinated with Hye-Sung Moon to research SUMO and have made some progress in the installation of SUMO over the Ubuntu OS. Worked with team members to complete reports for the team.	15	70
Jared Gorton	Install Ubuntu 16.04.2 VirtualBox in order to run OAI and test algorithm. Begin installing OAI on the Linux virtual machine. Install SUMO on the Linux virtual machine.	12	50
Khanh Luu	Working on project plan. Installing OAI on Linux 16.04-02. Researching and installing dependencies for OAI software.	14	50
Ted Miller	Worked on the project plan with other members of the group. Researched into the CPS algorithm by reading the CPS paper and doing some other research. Worked on OAI	15	71

	by creating to different .ova files for the rest of the group. The first .ova file has OAI downloaded and partially installed on Ubuntu 14.02. While the second .ova file has OAI partially installed using Ubuntu 16.04		

Gitlab Activity Summary

Nothing to report.