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

Week 1 Report

August 28 - September 4

Team Members

Anthony Benson — *software engineer*
Hye-Sung Moon — *client-adviser liaison*
Jaime Zetina — *report manager*
Jared Gorton — *software engineer*
Khanh Luu — *client-adviser liaison*
Ted Miller — *meeting scribe*

Summary of Progress this Report

The Senior Design Team *Open-Source Prototyping of 5G Wireless Systems for Smart Ag, Autonomous Vehicles* has;

- 1) Met and discussed in some detail the aspects that make a team project successful. Topics include;
 - a. Clear and open communication between team members.
 - i. As a team we all understood we need to communicate clearly and honestly with each other. If one team member is doing well, we must acknowledge the team member and ask for help if the rest of the team is falling behind
 - ii. We must hold each other accountable for assigned task. When a team member falls behind and is not producing result that help the team progress forward, we must clearly and honestly let them know they are falling behind and need to ask for help in order to correct the deficiently.
 - b. Team roles
 - i. We have discussed team roles and assigned some positions, however at this point and time we are not completely sure what additional roles may be truly necessary.
 - ii. We have assigned Jaime Zetina as the report manager that will be responsible for weekly reporting, Ted Miller as the meeting scribe in charge of setting meeting times and recording the on goings of the meetings, both Hye-Sung Moon and Khanh Luu as main points of contact for the client and advising professor, both Anthony Benson and Jared Gorton are our initial software engineers.
 - 2) The team along with the adviser, has discussed the importance of reading and comprehending the reading material covering Unified Cellular Scheduling (UCS), Physical Ratio K Scheduling (PRKS), Cyber Physical Scheduling (CPS) and any other material that may be relevant to the project. During the meeting with the client we have discussed the initial concept of the project (using the information from the reading material to design an algorithm which can be molded and used as a 5g prototype network).
 - 3) Team has set up Trello and slack boards for communication between team members and to track progress. Future meeting time with the professor has been set for Fridays from 3 pm to 4 pm. Team meeting times are set for Wednesdays from 9 am to 11 am and Fridays from 4 pm to 5 pm and are subject to change depending of the teams needs and progress.
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Pending Issues

- 1) Narrow the broad concept of a prototype 5g network to a more physical application. Present ideas in which we state, the direction or application our prototype 5g network should focus towards.

- 2) Begin to research simulation software that will be necessary for the project.
- 3) Read recommended material applicable to the project (mentioned above).
- 4) Better define team roles and responsibilities.

Plans for Upcoming Reporting Period

- 1) Define team member roles
- 2) Define different types of simulation software
- 3) Discuss reading material and understanding of the reading material
- 4) Discuss specific ideas for the purpose of the prototype 5G network to bring a specific application for the project.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Anthony Benson	Initiated the set up of Slack for the group and has created new conversation for each topic. Attended group meetings and meetings with the adviser where we talked about ideas for the project. Started research on 5G technology by reading applicable material.	8	8
Hye-Sung Moon	Attended meetings with the advisor and talked about the different parts of the project and what kind of research it may require. Actively participated in the setup of Slack, Trello, and share drive. Prepared to read the LTE-5G book and other related reading material.	9	9
Jaime Zetina	Attended meetings with the adviser as well as team meetings. We discussed the different parts that are applicable to the project. Actively participated in filling out Trello board to track progress of the project and assigned tasks. Began researching the 4G and 5G concepts and principles as well as the articles handed to us by the client. the articles cover unified cellular scheduling, cyber physical scheduling, and unified scheduling for predictable and reliable communication.	9	9
Jared Gorton	Attended meetings and actively participated in discussion. Began to read papers related to the project. Participated in the trello and	6	6

	slack board. Began to research 5g prototyping.		
Khanh Luu	Attended meetings and actively participated in discussion. Began to read papers related to the project. Participated in the trello and slack board. Began to research 5g prototyping. Researching for project direction and application.	6	6
Ted Miller	Met with advisor and actively participated in the discussion of the different parts of the project and how to approach the research for them. Made a trello board to help keep track of different elements of the project for the team. Got started on the reading for a few of the different resources about the project. Kept minutes for the team meeting and have set meeting times and locations.	9	9

Gitlab Activity Summary

 Action: joined, Fri Aug 31 2018
 Author: mhss5458

 Action: joined, Fri Aug 31 2018
 Author: jzetina

 Action: joined, Tue Aug 28 2018
 Author: tgm

 Action: joined, Tue Aug 28 2018
 Author: kdllu

 Action: joined, Tue Aug 28 2018
 Author: jmgorton

 Action: joined, Tue Aug 28 2018
 Author: anthonyb

Action: created, Tue Aug 28 2018

Author: sd
