

EE/CprE/SE 491 WEEKLY REPORT 4

10/21/2019 – 11/11/2019

Group Number: 17

Project Title: Development of an App for Android Smart Phone for Pavement Roughness Estimation

Client/Advisor: Halil Ceylan

Team Members:

Tanner Dempsay – Communications Manager

Joe Van Treeck – Data Manager

Christian Royston – Git Master

Justin Kuennen – Web Master

Greg Starr – Logistics Manager

Kyle Eckrich – Report Manager

Weekly Summary

- Test Data Generation
 - The server now has URL's which allow us to download log files from routes. The data is available in gpx and csv formats. This way we can use the data for further testing or rerunning a route we have previously taken.
- IRI Implementation
 - We have implemented a rough version of the IRI calculation in Java for the Android application. This will be a starting point for testing and revisions.
 - In the next week, we will be porting this to the server and looking at filtering techniques to improve data.
- Design Document Revisions
 - The design document for our project has been revised to include more detailed design plans, some completed technical work from our team, as well as an initial testing plan for our platforms.

Past Week Accomplishments

- Lightning Talk: Technical Challenges
- GPX File Exporting from Server
- Design Document v2

Individual Contributions

<u>Team Member</u>	<u>Contributions</u>	<u>Hours This Week</u>	<u>Cumulative Hours</u>
Tanner Dempsay	Implemented GPX file outputting on server and static file access from server URLs. Contributed to testing and current design work sections of design document.	15	36
Christian Royston	Completed screen sketches for Android application. Added them to design document	9	23

Joe Van Treeck	Implemented initial IRI algorithm on Android. Worked on task section of design document v2.	15	34
Justin Kuennen	Starting GPS library for Android application based on Google Maps	5	18
Kyle Eckrich	Worked on lightning talk presentation. Added database design information to design document	7	21
Greg Starr	Worked on lightning talk presentation.	6	20

Plans for the Upcoming Week

- Server
 - Port IRI calculation algorithm to server and begin initial testing
- IRI Calculation
 - Research and test filtering techniques for input and/or output data
- Begin converting screen sketches to layouts in Android Studio