

QUARTERLY PROGRESS REPORT

Fiscal Year 2015/2016 , Quarter 2nd

Caltrans Task Manager: David Chursenoff Task ID/Project ID (for Caltrans use only): 2806

Task Order No.: 025

Contract No.: 65A0529

1. Task Title: Promoting Peer-to-Peer Ridesharing Services as Transit System Feeders

2. Describe last quarter's tasks/deliverables:

Task 3. Algorithm enhancement (completed)

Task 4. Parametric study (completed)

Task 5. Joint rideshare assesment (started)

Task 6. Standalone rideshare (started)

Task 7. Mobile application (continuing)

In the beginning of the quarter we had identified the important nodes in the network under study, i.e. go points and transfer points. One of the inputs to our dynamic ridesharing algorithm is the set of links in the network. Each link represents a time-dependent travel between two Go Points, and so includes four elements representing the starting and ending Go Points of the trip, the departure time from the starting Go Point, and the arrival time at the ending Go point. We have developed codes that can use Google API to obtain time-dependent travel times between the Go points. Using these codes, we have obtained travel times between the Go Points during the peak hours, and are now in the process of obtaining travel times during the non-peak hours.

Using travel demand extracted from the SCAG model, we have generated a random (in time) pool of participants for the rideshare system, which will be used in the simulations. Furthermore, we have started developing the simulation models for both the rideshare-transit and rideshare-alone systems by encoding the stations, the set of links generated for the peak-hour trips, and the pool of participants. We have successfully encode our ridesharing algorithm to the mobile application, and have moved forward with developing a user-friendly interface.

3. Describe next quarter's tasks/deliverables and their due dates:

Task 5. Joint rideshare assesment

Task 6. Standalone rideshare

Task 7. Mobile application (continuing)

Task 8. Pilot field tests (continuing)

On the field tests and small survey, we hope to not have delays due to IRB approvals that may be required within UCI. The survey is expected to be done in March 2016, as of now.



4. Describe Project Status:

- Are you on time with your schedule?
 YES
 NO

- Are you on budget?
 YES
 NO

- Are you on scope?
 YES
 NO

If the answer to any of the above is NO, please explain below:

5. Estimated percent of work completed: 70%
 Estimated percent of budget expended: 60%

6. What are your expenditure projections for the next four quarters or until the project's end?

FY 15/16; Q1	FY 15/16; Q2	FY 15/16; Q3	FY 16/17; Q4
\$ 19,000	\$ 45,000	\$ 50,000	\$ 5,631



Use this area for any additional information. Clearly identify which Section this information applies to.

Submitted By: Prof. R. Jayakrishnan, PI, UC Irvine

Date: Feb 1, 2016