

IntelliDriveSM Pooled Fund Study

Program to Support the Development and Deployment of Infrastructure IntelliDriveSM Applications

University of Virginia Center for Transportation Studies

Progress Report
May 2010

Project Activities/Progress

Project Management

1. *Face-to-face meeting held at the ITS America annual meeting*

- The face-to-face meeting of the pooled fund study members, associate members, liaisons, and the selected contractor was held in Houston, Texas on Wednesday, May 5th 1:00-5:00PM CDT.
- A total of 24 attendees participated on site and 6 more attendees via the conference call line.
- Major items discussed/presented at the meeting were:
 - The pooled fund study restructuring, and
 - Updates of the three year 1 projects including IntelliDrive traffic signal algorithms, pavement maintenance support application and signal phase and timing application.

2. *Action items drawn from the face-to-face meeting*

- After the meeting, the project management team prepared the meeting minutes to summarize what was discussed at the meeting and delivered it to VDOT.
- Also an initial list of proposed activities for the year 2 research program was developed by synthesizing the discussions at the meeting along with three existing documents including 1) US DOT day-1 use cases, 2) applications studied at the proof of concept test in Detroit, Michigan, and 3) five applications endorsed by AASHTO in the IntelliDrive deployment analysis RFP.

3. *Travel reimbursement requests processed*

- Travel reimbursement requests from the attendees of the member states are being received and processed.

IntelliDriveSM Traffic Signal Algorithms

1. Algorithm coding in VISSIM network

- The project team continued coding the platoon-based and network optimization algorithms in C# using VISSIM COM. Both will continue to refine the algorithm after viewing simulation runs and reviewing preliminary results.

2. Preliminary Results

- The oversaturated conditions algorithm completed coding in a theoretical two-intersection, one-way street network. Based on the IntelliDrive-based strategy used in the algorithm, simulation showed a maximum possible improvement in throughput (5.7% - 25%) for the side street, at the affected intersection, compared to fixed time signal control.
- The project team will test further, perform sensitivity analyses, and is preparing a conference paper based on this algorithm.

3. SAE J2735 Standard Review

- The project team continues to track development of the SAE J2735 standard, the primary standard governing IntelliDrive Message Set Dictionary.
- The project team is also attending SAE J2735 subcommittee's conference calls to monitor developments not yet included in the current standard.
- The project team is attending the IntelliDrive Deployment Scenarios Workshop in Dulles, VA on June 22-23.

Project Status

The project is on schedule. A follow up conference call will take place on Wednesday, June 2 to discuss 1) the proposed charter and 2) recommended activities for the year 2 research program. Further algorithm development, refinement, coding, and simulation continue in June.

Invoice Notes

None