ITS Technical Committee
Meeting Minutes
Tuesday, February 2, 2016

<table>
<thead>
<tr>
<th>Name</th>
<th>Agency</th>
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<tr>
<td>Ray Starr</td>
<td>MnDOT</td>
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<td>Steve McHenry</td>
<td>SRF</td>
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<td>Dan Nelson</td>
<td>AECOM</td>
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<td>Morrie Luke</td>
<td>MnDOT – RTMC</td>
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<td>Jim McCarthy</td>
<td>FHWA</td>
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<td>Durga Panda</td>
<td>Retired</td>
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Meeting Location: MnDOT Waters Edge, Conference Room A
Meeting Topic: Turning Connected Vehicle Data into Traffic Measures Using V2I Emulator
Meeting Presenter: James McCarthy, FHWA

1. Introductions / Sign-up sheet
2. Approve Minutes of Tuesday, December 1, 2015
3. Review Agenda of Tuesday, February 2, 2016

- It was a good session even though it was small!
  - Jim discussed two activities:
    - V2I emulator software development- Trajectory Conversion Algorithm (TCA) version 2
    - Performance estimation using BSM variants
  - TCA was developed to emulate V2I messaging variants BSM Part 1 and BSM Part 2 with DSRC, cellular, and both, including latency and data loss.
  - Three products are available:
    - TCA 2.X Offline Analysis Software
    - TCA-V 2.X VISSIM API
    - TCA-P 2.X PARAMICS API
  - TCA 2 also contains performance measure calculation algorithms
  - Diagram below show concept of operation of the software in offline mode.
The products are available via OSADP www.itsforge.net.

Performance measures were estimated using BSM variants at various market penetrations.

Key finding from performance estimation:
- BSM and PDM is more effective in performance estimation when used in combination than individually.

5. Round Robin: None.

6. Other:
- Due to winter storm the meeting had very few attendees.
  - Jim McCarthy is willing to give an encore presentation if the committee members want—
    - please let us know by emailing to: dppanda@hotmail.com or morris.luke@state.mn.us.

- Next meeting will be held on Tuesday, April 5, 2016, 1:00pm-to-3:00pm at Waters Edge Conference Room A.
  - Meeting Topic: Remote Monitoring Systems Engineering, by Ginny Crowson, Athey Creek.