

REPORTING PERIOD: October 1, 2014- March 31, 2015

CAMPUS: University of Arizona

PI: Yao-Jan Wu

**PROJECT/PROGRAM TITLE: Multi-modal Arterial Performance
Measurement using Multi-source ITS Data**

1. ACCOMPLISHMENTS: What was done? What was learned?

- What are the major goals and objectives of the program?

To develop a best practice protocol for collecting multiple sources of ITS data and demonstrate their optimal utilization to measure multi-modal arterial performance.

- What was accomplished under these goals?

Multiple sources of ITS data have been collected.

- What opportunities for training and professional development has the program provided?

Hands-on experience by working with a city traffic technician in the field.

- How have the results been disseminated? If so, in what way/s?

Yes, the results were presented at multiple conferences and local news report.

- What do you plan to do during the next reporting period to accomplish the goals and objectives?

Finalize the classification algorithm proposed in the proposal.

2. PRODUCTS: What has the program produced?

- Publications, conference papers, and presentations;
- 1. Integrated Transportation Data-Driven Approach for Arterial Performance Measures. *Invited* by American Council of Engineering Companies of Arizona (ACEC) at Arizona Conference on Roads & Streets. Apr. 1st, 2015.
- 2. Low-cost Data-Driven Approach to Measuring Arterial Performance. *Invited* by Southern Arizona ITE Chapter. Mar. 20th, 2015.

- Website(s) or other Internet site(s);

<http://stl.webhost.uits.arizona.edu/Bluetooth/>

- Technologies or techniques;

N/A

- Inventions, patent applications, and/or licenses;

N/A

- Other products, such as data or databases, physical collections, audio or video products,

The data includes vehicle GPS trajectory data, general transit feed specification (GTFS) data, Bluetooth data and video detector count data in the Tucson region.

3. PARTICIPANTS & COLLABORATING ORGANIZATIONS: Who has been involved?

- What organizations have been involved as partners?

The City of Tucson and Pima Association of Governments

- Have other collaborators or contacts been involved?

Yes. Arizona Department of Transportation

4. IMPACT: What is the impact of the project? How has it contributed to transportation education, research and technology transfer?

Big data analysis – A class on big transportation data analysis is being developed through this project.

5. CHANGES/PROBLEMS

- Changes in approach and reasons for change

No

- Actual or anticipated problems or delays and actions or plans to resolve them.

No

- Changes that have a significant impact on expenditures.

No

- Significant changes in use or care of animals, human subjects, and/or biohazards

No