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| **UTC Project Information** | |
| Project Title | Freeway Traffic Safety and Efficiency Enhancement through Adaptive Roadway Lighting and Control Enabled by Connected Sensor and Infrastructure Networks |
| University | University of Washington |
| Principal Investigator | Yinhai Wang |
| PI Contact Information | yinhai@uw.edu |
| Funding Source(s) and Amounts Provided (by each agency or organization) | University of Washington PacTrans $180,000  Washington State Department of Transportation $100,000  Oregon Department of Transportation $80,000 |
| Total Project Cost | $360,000 |
| Agency ID or Contract Number | DTRT13-G-UTC40 |
| Start and End Dates | December 16, 2016 – January 31, 2018 |
| Brief Description of Research Project | The objective of this project is to develop an adaptive roadway lighting methodology and a supporting simulation platform through which it can be tested. The methodology will consider multi-source data including roadside sensor outputs, weather data, roadway geometrics, and elevation data as inputs in order to determine an optimal lighting strategy, as well as active traffic management (ATM) strategies. Specifically, this project will conduct research to evaluate the feasibility and value of controlling the roadway lighting system based on site- and time-specific characteristics (i.e., weather, traffic, pavement marking conditions). Communication bandwidth offered by the ROAM (ROSS Open Antenna Management) system (produced by Acuity Brands) will be used for coordinating illumination from light to light, as well as provide for between lights and roadway users via their mobile devices. |
| Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here |  |
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| Impacts/Benefits of Implementation (actual, or anticipated) |  |
| Web Links   * Reports * Project Website |  |