



National Center for Sustainable Transportation

Project Information Form

Project Title	Graduate Fellowship Project: Transportation Big Data: Networked Sensor Data Error Estimation
University	University of California, UC Davis
Principal Investigator	Saurabh Maheshwari Advisor: Yueyue Fan
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Funding Source(s) and Amounts Provided (by each agency or organization)	University of California, Davis, Graduate Studies, \$61,000
Total Project Cost	\$61,000
Agency ID or Contract Number	DOT 69A3551747114
Start and End Dates	October 1, 2017 – September 30, 2018
Brief Description of Research Project	Reliability of sensor data is highly indispensable in order to obtain high standards of transportation system efficiency, safety and sustainability. By combining statistics and various network modelling techniques, the research aims at solving this question and providing greater modeling flexibility to incorporate spatial correlation of networked data. Finally, the aim is to program an open source software that can be handed to the transportation agencies to apply the research for practical purposes. Prior to creating the mathematical model, however, various challenges are required to be answered, such as spatial correlation of networked data due to underlying principles of traffic flow, measurement errors, and methodology to transfer knowledge to practice. In the project, with the help of statistical approaches, transportation network modeling techniques will be deployed to address new challenges to sensor health monitoring problems.
Describe Implementation of Research Outcomes (or why not implemented) (Attach Any Photos)	
Impacts/Benefits of Implementation (actual, not anticipated)	



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Web Links

- Reports
- Project website

<https://ncst.ucdavis.edu/graduate-student-research/>