

## UTC Project Information

Project Title	Development of a Preservation Sustainability Framework and Tool
University	University of Illinois at Urbana Champaign
Principal Investigator	Imad Al-Qadi, Ph.D., P.E
PI Contact Information	205 N. Mathews Ave. Urbana, IL 61801, 217-265-0427, alqadi@illinois.edu
Funding Source(s) and Amounts Provided (by each agency or organization)	\$278,660 USDOT \$139,300 UIUC
Total Project Cost	\$417,960
Agency ID or Contract Number	DTRT13-G-UTC44
Start and End Dates	August 15, 2016 to August 14, 2018
Brief Description of Research Project	Diminishing funds for transportation infrastructure projects encouraged agencies to develop and implement cost-effective preservation and rehabilitation treatments to maintain pavement serviceability while reducing the backlog in pavement network. The major philosophy of preservation suggests a long-term and cost-effective program applied to a network not just a single project. Pavement preservation has recently gained wide acceptance among the highway agencies because of its cost effectiveness and ability to enhance pavement performance. In addition, preservation treatments can provide additional benefits in terms of reducing environmental impact of pavements. Unlike traditional repair and rehabilitation techniques, preservation treatments result in different cost, performance, and environmental impacts; hence, development of a preservation program for a network require consideration of these three major determinants: cost, performance, and environmental impact.
Describe Implementation of Research Outcomes (or why not implemented)	N/A
Place Any Photos Here	

The study results will produce the following specific deliverables:

Impacts/Benefits of Implementation (actual, not anticipated)

1. Guidelines for a new sensing methodology and associated installation procedures that would allow the placement of the sensing system at the pavement surface applied without major modifications to the regular SHAs maintenance activities
2. Guidelines for the design of the system to achieve early detection of aging zones, which will help improve scheduling and planning of preservation actions.
3. Guidelines for efficiently viewing, analyzing and reporting the new pavement degradation data consistent with existing pavement management systems. because it would dissipate more energy.

Web Links

<[www.chpp.egr.msu.edu](http://www.chpp.egr.msu.edu)>

- Reports
- Project website