



Center for Advanced Multimodal Mobility Solutions and Education

UTC Project Information – CAMMSE @ UNC Charlotte	
Project Title	Developing Friction Data to Support the Optimal Use of Pre-wet Deicing Salt for Enhanced Winter Mobility
University	Washington State University
Principal Investigator	Xianming Shi
PI Contact Information	(509)-335-7088 / xianming.shi@wsu.edu
Funding Sources and Amount Provided (by each agency or organization)	The University of North Carolina at Charlotte: \$60,000 Washington State University: \$30,001
Total Project Cost	\$90,001
Agency ID or Contract Number	
Start and End Dates	10/01/2017 – 09/30/2018
Brief Description of Research Project	Currently agencies in North America do not have reliable data to analyze the effectiveness and efficiency of its pre-wetting salt operations in districts facing localized and diverse traffic and weather conditions. Research is much needed to understand the influence of pre-wetting product type, pre-wetting ratio, and application rate of pre-wet deicing salt on the friction performance of deiced asphalt pavements, so as to generate the data needed for optimizing the use of pre-wet deicing salts for enhanced winter mobility. This UTC project will address this knowledge gap by conducting a customized laboratory testing program to lay the groundwork and developing a plan for subsequent field operational



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	<p>tests (FOTs). The ultimate goal is to develop data needed to support the optimal decisions related to the practices of pre-wetting salt and subsequent deicing to improve the mobility and safety of multimodal transportation systems in a fiscally and environmentally responsible manner.</p>
<p><i>Describe Implementation of Research Outcomes (or why not implemented)</i></p> <p><i>Place Any Photos Here</i></p>	
<p><i>Impacts/Benefits of Implementation (actual, not anticipated)</i></p>	
<p><i>Web Links</i></p> <ul style="list-style-type: none"> • <i>Reports</i> • <i>Project website</i> 	<p>https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CAMMSE-UNCC-2018-UTC-Project-Information-16-Shi.pdf</p> <p>https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CAMMSE-UNCC-2018-UTC-Project-Report-16-Shi-Final.pdf</p>