

<b>UTC Project Information</b>	
Project Title	MPC-679 – Framework of Adaptive Intersection Traffic Control Strategy for Urban Traffic Network Subjected to Disruptions
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Start and End Dates	December 17, 2021 to July 31, 2022
Brief Description of Research Project	<p>For urban communities, congestion at traffic network poses serious societal and economical threats. In recent years, various advanced traffic control strategies, including ITS-based signal control plans, have been developed to mitigate the urban congestion. However, most of existing studies are limited to recurrent congestions at normal driving conditions or single intersection optimization during incidents. Urban traffic network experiences complex disruptions due to traffic crashes and adverse weather events, under which the induced congestion and deteriorated traffic performance become hard to be assessed or predicted. As a result, traditional traffic control strategy at intersections do not meet the needs by offering optimal and timely mitigation results which are adaptive to specific disruptions. Moreover, single-intersection strategy may not offer the best solution for the whole urban traffic network and some adaptive strategies which can handle the needs at different spatial and temporal scales are desired.</p> <p>This study will develop a new traffic performance assessment and adaptive traffic control strategy framework which is adaptive to specific disruptions and offers multiple optimization plan for both single intersections and the whole network. The proposed framework, once developed, will help building safer and more efficient urban traffic network and more resilient transportation against various disruptions from hazards.</p>

Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none"><li>• Reports</li><li>• Project Website</li></ul>	