

Center for Advanced Multimodal Mobility Solutions and Education

UTC Project Information – CAMMSE @ UNC Charlotte	
Project Title	Corridor Level Adaptive Signal Control
University	The University of Texas at Austin
Principal Investigator	Randy Machemehl
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Funding Sources and	The University of North Carolina at Charlotte: \$140,000
Amount Provided (by	
each agency or	
organization)	
Total Project Cost	\$140,000
Agency ID or Contract	
Number	
Start and End Dates	01/15/2017 – 09/30/2019
Brief Description of	Traffic congestion in Austin Texas is becoming more problematic as
Research Project	the City continues growing rapidly. Current estimates indicate over
	150 people per day are moving to Austin. To deal with the growing
	congestion problem in many travel corridors, the City is proposing
	adaptive traffic signal systems for several routes. The first pilot test
	is to be on a north-south route (Lamar Blvd) that experiences
	congestion particularly during the AM peak time. Before-after
	assessments of the proposed timing methodology will be
	developed from field observations and form the basis for improving
	the concept. The chosen corridor is an excellent test bed since it
	features hard-wire connected signal controllers and video
	surveillance. Street geometry includes two lanes each direction



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	with a continuous two-way left turn lane. The research team has
	extensive experience with adaptive signal control concepts and this
	knowledge will be a significant contribution to the effort.
	Before-after field data combined with micro-simulation will
	constitute the primary tools. The research team also has a fully
	calibrated network model and dynamic traffic assignment
	capabilities to examine the likelihood of travelers changing paths
	potentially impacting the Lamar corridor signals.
Describe Implementation	
of Research Outcomes	
(or why not	
implemented)	
Place Any Photos Here	
Impacts/Benefits of	
Implementation (actual,	
not anticipated)	
Web Links	https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CA
Reports	MMSE-UNCC-2017-UTC-Project-Information-04-Machemehl.pdf
• Project website	https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CA
	MMSE-UNCC-2017-UTC-Project-Report-04-Machemehl-Interim- Report pdf