

Center for Advanced Multimodal Mobility Solutions and Education

UTC Project Information – CAMMSE @ UNC Charlotte	
Project Title	Are Transportation Network Companies Synergistic with Other
	Shared Ride Mode Offerings? An Exploratory Analysis of Demand
	Data from NYC Utilizing High Resolution Spatiotemporal Models
University	The University of Connecticut
Principal Investigator	Karthik Charan Konduri and Nalini Ravishanker
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Funding Sources and	The University of North Carolina at Charlotte: \$59,999
Amount Provided (by	The University of Connecticut: \$30,269
each agency or	
organization)	
Total Project Cost	\$90,268
Agency ID or Contract	
Number	
Start and End Dates	10/01/2018 - 09/30/2020
Brief Description of	Spurred by technological advances, transportation networks and
Research Project	the mobility offerings for moving people and goods are undergoing
	transformative and significant changes. A significant operator in the
	area of moving people is transportation network companies (TNC).
	The growth of TNC is irrefutable and the direct impact of TNCs on
	mode choice behaviors of consumers is very evident. The current
	body of research on TNC is growing, and the literature is beginning
	to shine light on how they impact the demand for existing shared
	modes (e.g. bikeshare, transit). However, a comprehensive
	investigation of all shared ride modes in a particular region,



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	including the temporal and spatial patterns of overall shared
	demand and its relationship to other shared modes, is lacking. The
	proposed research attempts to fill this important knowledge gap by
	analyzing data about shared mode offerings in New York City. The
	research will develop multivariate analysis methods from time
	series literature including state-space models, and dynamic
	compositional methods to explore the spatial and temporal
	patterns of different shared modes and also attempt to capture the
	tradeoffs across modes. This exploration will help better plan the
	shared mode offerings so the positive impacts can be promoted
	and negative impacts can be alleviated.
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-2019-UTC-Project-Information-10-Konduri.pdf
Project website	https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CA
	MMSE-UNCC-2019-UTC-Project-Report-10-Ravishanker-Konduri- Final.pdf
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