Center for Advanced Multimodal Mobility Solutions and Education

UTC Project Information – CAMMSE @ UNC Charlotte	
Project Title	Evaluating the Potential Use of Crowdsourced Bicycle Data in North Carolina
University	The University of North Carolina at Charlotte
Principal Investigator	Wei Fan and Yu Wang
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Funding Sources and Amount Provided (by each agency or organization)	U.S. Department of Transportation: $60,000 The University of North Carolina at Charlotte: $30,006
Total Project Cost	$90,006
Agency ID or Contract Number	
Start and End Dates	10/01/2017 – 09/30/2019
Brief Description of Research Project	Bicycle volume data can be very helpful in making informed decisions about bike facility investment, bike planning and operations, and can also be used to develop bicycle crash risk models. The methods of data collection can be diverse. The traditional manual counts and travel surveys, comparing to the promising crowdsourced data from third party, are expensive, time consuming, and lack of spatial and temporal coverage. As crowdsourced bicycle data (including Strava, CycleMaps, Moves and Map My Ride) becomes more common and increasingly available, it can greatly help address data gaps and be readily used for efficient and effective decision making as well as performance

	measures. This research will focus on evaluating the potential use of crowdsourced bike data, and compare it with the traditional bike counting and travel survey data in North Carolina (if available). Using the bike data from the smartphone cycling apps, the predictive models and software of city-wide and/or state-wide bike volumes can be potentially developed to support decision making and performance monitoring.
Describe Implementation of Research Outcomes (or why not implemented) *Place Any Photos Here*	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links • *Reports* • *Project website*	https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CAMMSE-UNCC-2018-UTC-Project-Information-03-Fan.pdf https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CAMMSE-UNCC-2018-UTC-Project-Report-03-Fan-Final.pdf