UTC Project Information – CAMMSE @ UNC Charlotte	
Project Title	Dynamic Speed Harmonization in Connected Urban Street Networks: Improving Mobility
University	Washington State University
Principal Investigator	Ali Hajbabaie
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Funding Sources and Amount Provided (by each agency or organization)	The University of North Carolina at Charlotte: $40,000 Washington State University: $20,002
Total Project Cost	$60,002
Agency ID or Contract Number	
Start and End Dates	10/01/2018 – 09/30/2020
Brief Description of Research Project	The proposed project utilizes the envisioned capabilities of smart cities and connected and autonomous vehicles (CAVs) to develop a scalable and real-time methodology for speed harmonization in urban street networks. Speed harmonization is expected to improve traffic operations by controlling the arrival of vehicles to signalized intersections, reduce the number of stops, and decrease fuel consumption. The proposed methodology will dynamically determine advisory speeds that will be communicated to CAVs that are presented in the traffic stream and quantify the impacts of CAV market penetration rate on speed harmonization effectiveness. The research will develop a distributed approach for speed

	harmonization to guarantee its scalability and real-time performance. To avoid finding locally optimal solutions, the research will create effective coordination between distributed decision makers to push the solutions towards optimality.
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-2019-UTC-Project-Information-17-Hajbabaie.pdf https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CAMMSE-UNCC-2019-UTC-Project-Report-17-Hajbabaie-Final.pdf