

Development of an Autonomous Campus Vehicle Platooning System
(Technical Report)

The Road to Transport Equity: Automated Driving and the Pursuit of
Inclusive Urban Mobility
(Sociotechnical Research Paper)

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by

Rachel Thirumalai

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How can transportation be improved in terms of efficiency, sustainability, and health? Transportation systems are essential to people's everyday needs and have profound implications for environmental and financial sustainability, social equity, and public health. As engineers develop vehicular automation, policymakers, companies, and citizens must determine how the technology is best applied and regulated.

How can platooning and other road vehicle automation be improved? Upgrading existing systems, the Autonomous Campus Vehicle (ACV) at the University of Virginia developed a functioning vehicle platooning system with sensor integration. Initial tests indicate that the system performs satisfactorily.

In the US, how are technology companies, automakers, insurers, advocacies, transit agencies, and policymakers competing to determine the place of robotic automated vehicles (AVs), if any, in a more equitable urban mobility future? As tech companies develop and improve robotic vehicle technology, social groups compete to determine how these vehicles will fit into mobility systems, and how or if AVs can contribute to a more equitable mobility future. Although proponents claim that robotic vehicle technology can promote equitable mobility, evidence demonstrates that AV technology alone is inadequate in addressing the systemic inequities present in urban mobility systems. Better public transit, perhaps integrating robotic vehicles into existing mass transit systems, is the most promising way to improve mobility equity.