The University of Michigan (U-M) is a leader in connected-vehicle research and testing, sustainable mobility systems, transportation data fusion and analysis, and the efficient movement of heavy freight. Researchers are exploring ways to ensure that the future of transportation maximizes existing technology, as well as newly discovered innovations, all while remaining safe and secure.

Robust support from the Department of Transportation (DoT) allows for interdisciplinary and collaborative research that will improve the safety and efficiency of the movement of people and goods.
Connected Vehicles

U-M researchers are assessing the potential of “cars that talk to each other”—connected vehicle systems. Over the past five years, researchers at the U-M Transportation Research Institute (UMTRI) have installed wireless communication devices on more than 3,000 cars, trucks, and buses, as well as along roads throughout Ann Arbor. The devices allow vehicles to share data on individual vehicle position, speed and direction, and to warn drivers of potential crash situations. Researchers estimate that the technology may be able to help reduce crashes by up to 80 percent.

Vehicle Cybersecurity

Researchers at the U-M are working diligently to ensure that vehicles, both automated and manual, are cybersecure and able to withstand digital intrusion from outside sources. The National Highway Traffic Safety Administration is supporting research at U-M that focuses on heavy vehicles and how best to protect them from cyber attacks.

Paving the Way for Automated Transportation

U-M leads the U.S. DoT Center for Connected and Automated Transportation, a consortium of research universities working on the next generation of transportation technology, and providing recommendations and advice to national and regional leaders on how to ensure the United States remains a true leader in automated vehicle technology.