

Division of Freight, Transit, & Heavy Vehicle Safety

Virginia Tech Transportation Institute

About Us

At the Division of Freight, Transit, & Heavy Vehicle Safety, researchers solve complex heavy-vehicle (truck and bus) problems through deployment, testing, analysis, education, and outreach. Using the world-class facilities at VTTI, we focus on:

Addressing real-world challenges - through our research-to-practice philosophy and translating research findings into actionable countermeasures

Establishing key partnerships - across a variety of industry and government stakeholders

Conducting innovative research - including cutting-edge driver assistance, automated truck and bus technologies, and research to support the health, safety and well-being of truck and bus drivers and all who share the road with them

Programs

- **Demonstration & Deployment** - specializes in multi-state collaboration for improving safety, continuity, and efficiency of commercial and personal travel, with a specific focus on the I-81 corridor
- **Human Factors & Advanced System Testing** - specializes in helping industry and government sponsors solve transportation challenges through research in the interactions between humans and transportation systems
- **Research-to-Practice & Outreach** - specializes in conducting applied research and translating the results into real-world applications
- **Fleet Focus & Industry Applications** - focuses on fleet-based implementation of behavioral or technological systems through private and public research
- **Advanced Analytics in Behavior, Perception, & Safety** - focuses on using machine learning, computer vision, and advanced data analytics to solve critical problems related to safety, mobility, driver behavior, and automated vehicles



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Our Impact

Innovation - Our researchers evaluate the latest technology and software using training and prototype simulators before moving to full-scale deployment.

Outreach - We manage several outreach programs to share best practices with truck drivers, students in driver education programs, and the public – such as our Tips for Sharing the Road with Commercial Motor Vehicles website and our Sharing the Road program for high school students.

Collaboration - We engage various stakeholders in our projects - Departments of Transportation, regional planning organizations, private entities, heavy-vehicle drivers, roadway users and others. Our I-81 Corridor Collaboration brings together decision makers from six states.

Policy - Our research has resulted in direct and meaningful policy changes related to heavy transit vehicles to keep the roads safer for all users – such as our work to determine the safe maximum number of hours per week a truck driver can work.



About VTTI

For 35 years, VTTI has been conducting research to save lives, time, and money and protect the environment. In our world-class facilities, we investigate, invent, design, develop, refine and test transportation systems of the future. As one of seven premier research institutes created by Virginia Tech to answer national challenges, VTTI is continually advancing transportation through innovation and has affected public policy on national and international levels.

To learn more about our work and get more involved, please contact us at:

• 540-231-1500 • inquiries@vtti.vt.edu • www.vtti.vt.edu

Virginia Tech Transportation Institute
3500 Transportation Research Plaza
Blacksburg, VA 24061



Advancing Transportation Through Innovation