



TRANSPORTATION AND URBAN ENGINEERING

RESEARCH CLUSTER

Safer roads, improved personal mobility, better public transportation and an innovative approach to urban planning: UConn's transportation systems research cluster is working to make these goals happen.

SAFETY

Our researchers are leading major efforts to manage and analyze safety data that will allow for policy and design improvements that reduce fatalities and injuries on our transportation system. Over 35,000 people die on U.S. Highways each year, with recent years representing the largest annual increase in fatalities in nearly 50 years. Many of these deaths could have been avoided through technology or engineering. That's why we're working with the National Cooperative Highway Research Program to develop crash prediction models that will help make our nation's roadways safer. We have also partnered with the CTDOT to create a comprehensive safety analysis software system to assist in the identification of locations where safety could be improved, and technology can be used to save lives.

PUBLIC TRANSIT

Communities depend on reliable and efficient public transportation to stay vibrant and sustainable. With more than \$500,000 in funding from state and federal agencies, our researchers have developed t-HUB. This online mapping and analysis application uses big data to improve communication between the users and providers of public transit, and enhance the transportation planning process. Other researchers are working to develop algorithms to determine levels of congestion and traffic speed from real-time bus tracking information.

URBAN PLANNING

Urban planning is the design, planning and development of communities. Transportation is an essential component of urban planning and plays a key role in determining the sustainability of our towns. With over \$100,000 from the U.S. Department of Transportation, our researchers are heading up a project that explores all the costs that parking has on cities. Another project looks at the health impacts that a city's community and street design can have on its residents.

With collaborators that include the Connecticut Department of Transportation, the U.S. Department of Transportation and the Federal Highway Administration, we're making transportation better, more efficient and safer.

MAJOR RECENT TRANSPORTATION AND URBAN ENGINEERING PROJECTS

- With the Connecticut Department of Transportation, the New England University Transportation Center and the Federal Highway Administration, UConn's Transportation Systems Research Cluster has developed t-HUB, an online mapping and analysis application. PI is Nicholas Lownes. Funding: more than \$500,000 to date.
- With the US Dept. of Transportation, UConn is partnering with universities around the US in the Center for Advanced Multimodal Mobility Solutions and Education (CammSE). Funding: \$1 million, PI is Nicholas Lownes.
- The U.S. Department of Transportation is sponsoring the research project, "Assessing the Full Cost of Parking from the Perspective of the Municipality." Funding: \$111,000. PI is Norman Garrick.
- The National Cooperative Highway Research Program is sponsoring the development of crash prediction models aimed at making safer roads. Funding: \$800,000. PI is John Ivan.
- The National Research Council funded the project "Methodology to Predict the Safety Performance of Rural Multilane Highways." Funding: \$750,000. PI on the UConn team was John Ivan.
- With the Connecticut Department of Transportation, "Development and Execution of the Statewide Household Travel Survey." Funding: \$1.5 million. PI is Karthik C. Konduri, Co-PI is Nicholas Lownes.
- Development of the Advanced Driving Simulator and Pedestrian Safety study via funding from UConn CEE, OVPR and the CTDOT. Funding: \$660,000.
- With the Connecticut Department of Transportation, "Implementation of a 3-D Sensing Technology for Automated Pavement Data Collection in Connecticut". Funding: \$183,000. PI is James Mahoney.
- Expansion of the CT Crash Data Repository and creation of the CT Safety Management System through funding from CTDOT at \$3 million annually. PI is Eric Jackson.
- With the Connecticut Department of Transportation, "Connecticut's Safety Circuit Rider Program" and "Connecticut's Traffic Signal Systems Circuit Rider", Funding is \$1,900,000. PI is Donna Shea.

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