

Third Annual CATM Symposium

The third annual Center for Advanced Transportation Mobility (CATM) Symposium was held at Embry-Riddle Aeronautical University in Daytona Beach, Florida on Nov. 4, 2019. The symposium was an opportunity for students, faculty and researchers from the three consortium member institutions (North Carolina Agricultural and Technical State University (lead), Virginia Technical Institute, and Embry–Riddle Aeronautical University) to share news of transportation research and activities occurring within the University Transportation Center (UTC) over the previous year.

CATM is a UTC funded by the U.S. Department of Transportation in 2016 under the FAST Act. The consortium’s research efforts concern improving mobility for people and goods with a specific focus on transportation issues faced by vulnerable road users (VRU), which include people with disabilities and/or socioeconomic challenges, the elderly, youth, bicyclists and pedestrians.

The keynote speaker for the event was Ken Graham, director of the NOAA National Hurricane Center in Miami, Florida. Graham has extensive experience working with emergency managers and local officials to coordinate and oversee response efforts in high impact events. He has been deployed to emergency operations, provided official communications briefings, and delivered numerous trainings on preparing for and responding to tropical weather emergency situations. Graham has been instrumental in leading emergency response efforts to Hurricane Katrina, Gustav, and Ike. He also played a key leadership role in the crisis management of the Deepwater Horizon Oil Spill.



In his keynote address, Graham stressed the importance of the citizens taking the advance emergency weather alerts seriously and acting accordingly. The very people who do not are the ones who end up stranded and in dangerous, often life-threatening, situations. Not adhering to the advisories also leads to traffic congestion and transportation problems in emergency situations.

Other speakers at the symposium included affiliate researchers from each university detailing the status of their current research. The morning research presentation sessions were:

- Automated Last Mile Connectivity for Vulnerable Road Users: Andy Aldin (Virginia Tech Transportation Institute) (VTTI)
- Traveler’ Rationality in Online Anticipatory Emergency Response Model/ Dynamic Routing of unmanned-aerial and Emergency Team Incident Management: Hyoshin Park (N.C. A&T)
- VRU–Personalized, Optimum, and Dynamic Routing: Hyoshin Park (N.C. A&T)
- Multiscale Model for Hurricane Evacuation and Fuel Shortage : Sirish Namalae (Embry-Riddle Aeronautical University) (ERAU)

After lunch and the keynote address by Ken Graham, the afternoon research presentations were as follows:

- Analysis of Non-Driving Mobility Needs of People with Disabilities: Justin Owens (VTTI)
- Development, Design, and Calibration of Vulnerable Road User Mobility Assistance Platform: Justin Owens (VTTI)
- Real-Time Recommendations for Traffic Control in an Intelligent Transportation System during an Emergency Evacuation: Xuli Qu (N.C. A&T)
- Assessing Pedestrians’ Perceptions and Willingness to Interact with Autonomous Vehicles : Scott Winter (ERAU)

The Transportation Institute



Director of CATM and the N.C. A&T Transportation Institute, Dr. Maranda McBride welcomes attendees.



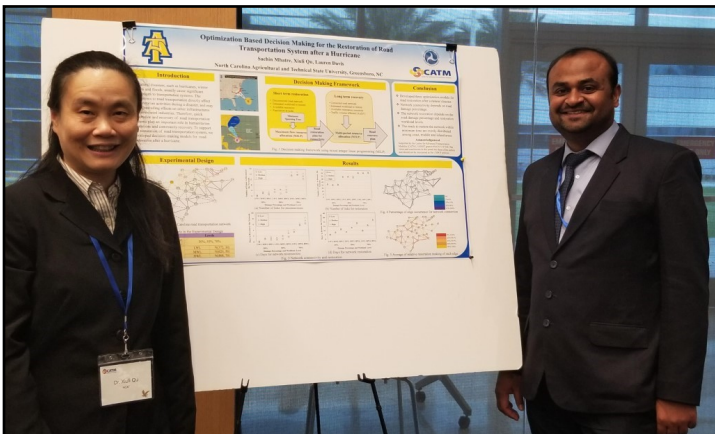
Program Manager of the Transportation Institute, Teresa McRae, tells of student activities and events over the year.



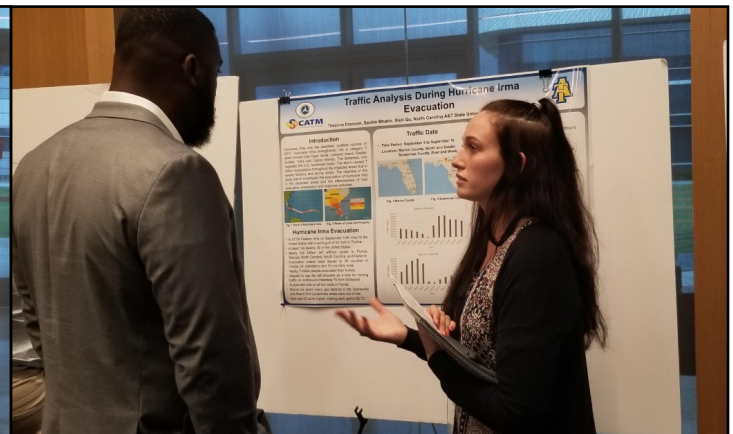
Dr. Lon Moeller, Provost of ERAU, welcomes the CATM Symposium to the Embry-Riddle Daytona Beach campus.



Tyreak Carr, CATM scholar at N.C. A&T and senior supply chain management major, speaks to the crowd.



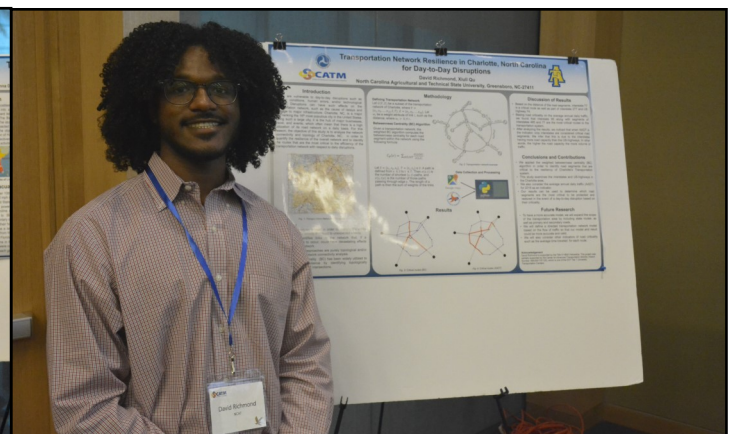
Both in the school of Industrial and Systems Engineering at N.C. A&T, Dr. Xiuli Qu, associate professor, poses with Sachin Mhatre (right), a Ph.D. student, in front of the poster detailing research on "Optimization Based Decision Making for the Restoration of Road Transportation System After a Hurricane".



Theanna Drennon, a senior industrial and systems engineering student at N.C. A&T, discusses her research and poster on "Traffic Analysis During Hurricane Irma Evacuation" with Trey Curtain, a CATM EAC member.



Lorraine Acevedo, a civil engineering student at ERAU, explains her research poster on "Temporospatial Analysis for Hurricane Evacuation" to Carletta Dudley, education and outreach coordinator for CATM at N.C. A&T.



David Richmond, Ph.D. candidate in industrial and systems engineering at N.C. A&T, presents his research poster on "Transportation Network Resilience in Charlotte, N.C. for Day-to-Day Operations".

