Center for Research and Education in Advanced Transportation Engineering Systems (CREATEs)

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www.rowan.edu/creates
Agenda

- 8:30 am  Welcome
- 9:00 am  Tour (RUCOM and RUAPTF)
- 10:30 am  Bus to Enterprise Center
- 11:00 am:  CREATEs Accelerated Pavement Testing (APT) Research
- 11:50 am:  Lunch
- 1:00 pm:  APT Research at Florida DOT, Bouzid Choubane
- 2:00 pm:  APT research at, Virginia DOT Brian Diefenderfer
- 3:00 pm:  Recently completed and upcoming research projects and outreach programs at CREATEs, Yusuf Mehta
Rowan CREATEs

- Rowan University
  - Accelerated Pavement Testing Facility (RU-APTTF)
  - Construction Materials Laboratory (RUCOM)
- Computational Modelling
- Field Evaluations
CREATEs Mission

- To conduct cutting edge, applied, and readily implementable research in transportation engineering
- Ensure a diverse working environment that educates and trains the next generation of professionals, and enhances the skill sets of the current workforce that can meet the engineering demands of the 21st century.
Impact of CREATEs

- Research Experience for Post-Doc Fellows and Research Associates
- Establish Partnership with Industry for workforce development in the region
- Research Experience to Graduate Students
- Research Experience for Undergraduate Students
Heavy Vehicle Simulator
CREATEs Heavy Vehicle Simulator

- Uni-directional and bi-directional loading (with 10,000 and 20,000 passes respectively)
- Wheel load applied from 20 to 100kN
- Truck tire pressure of 80-100psi / C-141 aircraft tire pressure up to 210psi
- Wheel wander up to 30 inches
- Loading has an effective length of 20 feet
Ribbon Cutting (September 14, 2016)
Potential Research at CREATEs

- Green technologies: Binder and mixture characterization
- Cementitious materials characterization
- Flexible and rigid pavement evaluation
- New/Innovative Pavement Technologies Evaluations
- Trucks and Airplanes Loading Impacts Evaluations
- Others (Environmental Impacts and Wander Patterns)
Rowan CREATEs

Thank you!

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