

Department of Civil and Environmental Engineering



Dr. Kauser Jahan, PE
Professor and Head

The CEE department at Rowan University emphasizes TLC: Teamwork, Leadership, & Community.

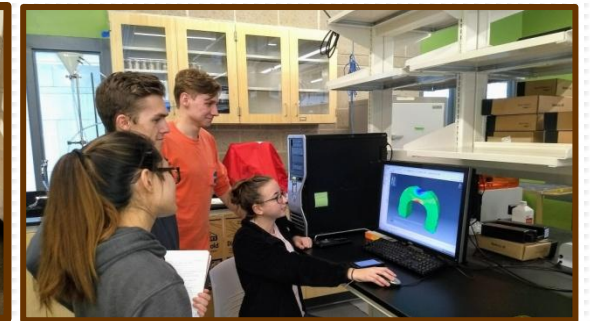
Our goal is to develop leaders with technical competence to build a sustainable world. We strive to prepare students who are poised to meet the challenges facing the world today and tomorrow. We have major funding from federal & state agencies.

\$14 million.

- Structural Engineering
- Transportation Engineering
- Geotechnical Engineering
- Mechanics and Materials
- Resiliency Planning for Communities
- Environmental Engineering
- Water Resources Engineering
- Sustainable Facilities
- STEM Outreach

Total Research
Funding

Fall 2020
\$14 Million



CEE RESOURCES- 4 TEACHING LABS; MANY AREAS OF RESEARCH; 2 RESEARCH CENTERS



- Laboratories**
- Four Teaching Laboratories
 - Structural
 - Geotechnical
 - Mechanics and Materials
 - Resiliency Planning for Communities
 - SMART Cities
 - Environmental
 - Water Resources

Centers
CREATEs
 Sustainable
 Facilities



STRUCTURAL AND GEOTECHNICAL ENGINEERING

Funding Agencies

- NSF
- DOD
- DOE
- FAA
- NYDOT
- NJDOT
- FHWA
- Private Companies



INTELLIGENT TRANSPORTATION SYSTEMS

SMART CITIES



Dr. Mohammad Jalayer

Funding Agencies:

- NSF
- NCHRP
- FHWA
- NJDOT
- NJTPA
- ATSSA



Smart Transportation Systems

ENVIRONMENTAL ENGINEERING

Funding Agencies

- NSF
- USEPA
- DOE
- WERF
- NJWRRI
- NYDOT
- NJDOT
- AFCEE
- NJDMAVA
- USGS
- Local Municipalities



WATER RESOURCES ENGINEERING

Funding Agencies

- NSF
- USEPA
- DOE
- WERF
- NJWRRI
- NYDOT
- NJDOT
- AFCEE
- NJDMAVA
- USGS
- Local Municipalities



SUSTAINABLE FACILITIES CENTER



Dr. Jess Everett, PE



Dr. William Riddell

- Building energy & water audits
 - eQuest
- Building Information Modeling
 - Autodesk - Revit
- Facility Sustainability
 - BUILDER SMS
- Facility management
 - Dude Solutions - FacilityDude
- Energy & water outreach and planning
- Solar and wind assessments



Funding Agencies: NJ DMAVA, NJ ARNG

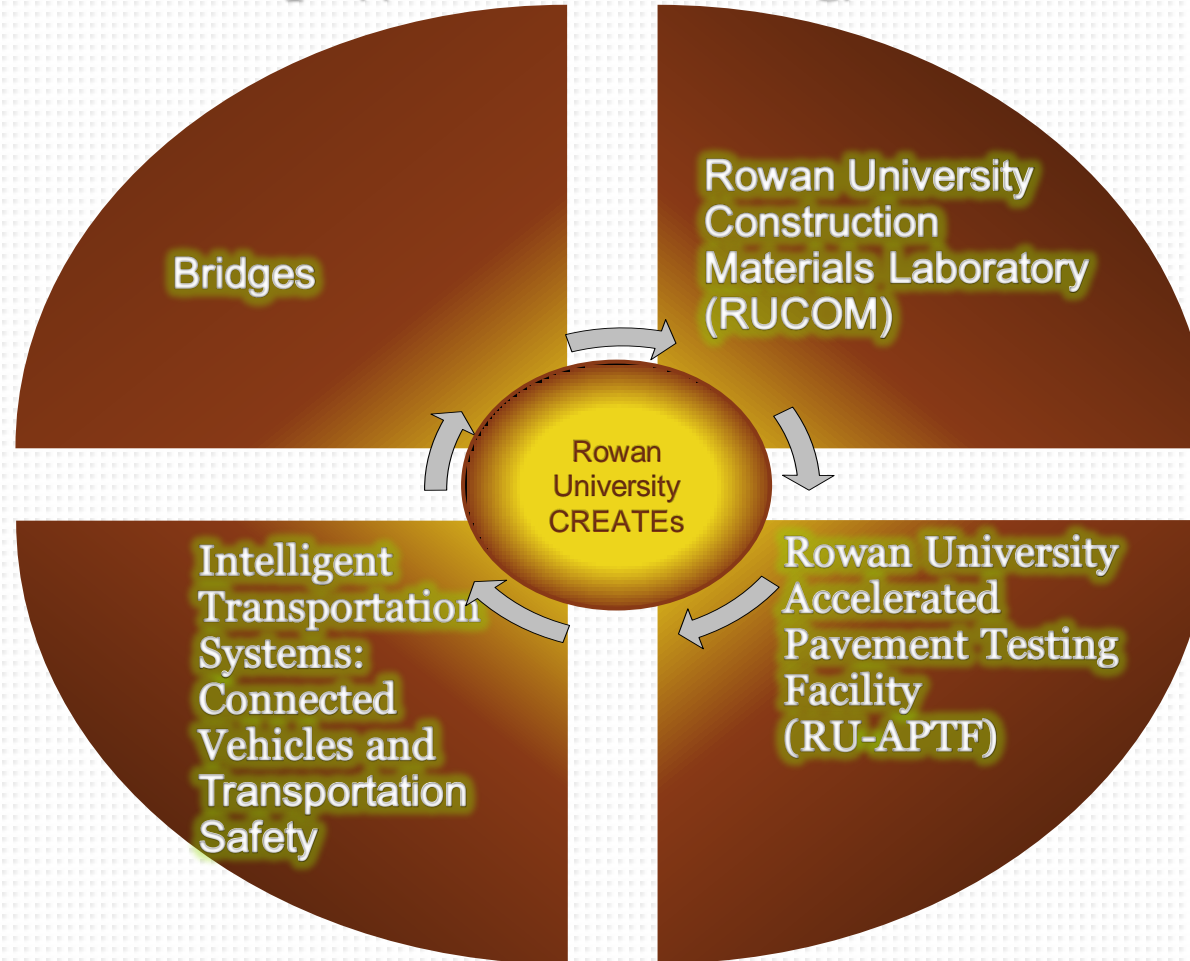


CREATES

Center for Research and Education in Advanced Transportation Engineering Systems

<https://rowancreates.org/>

Research Associates



Full time tenure track faculty members, full time staff

Establish Partnership with Industry for workforce development in the region

Research Experience for Undergraduate and Graduate Students



CREATEs Research & Outreach



Funding

- US DoD (Funding Total: \$11.5M since 2015)
- NJDOT and USDOT (Total Funding: \$3.3M since 2015):
- Others (Industry, federal); Total Funding: \$2M)

Education

- National Summer Transportation Institute (NSTI). **Total of 60 students**
- Nearly **60 civil engineering fellows** were trained since inception of CREATEs



Workforce Development

- Soil and Aggregate Technician Certification
- Pavement Design and Training Workshop
- CREATEs webinars on all aspects of transportation.
- Both Programs are offered **free of charge** for federal, state, and local employees
- In the first round of these programs, CREATEs has attracted 100+ professionals to take these programs.

Research to implementation

- Developed Specification for NJDOT on the use of the Dynamic Cone Penetrometer and RAP
- Developed an AI-based tool for real-time safety monitoring of intersections
- Developed an AI-based tool for FAA to identify the rotorcraft landing sites from google street
- *New Jersey Alliance for Action Distinguished Engineering Award, 2018*
- *New Jersey Research Implementation Award in 2020 and 2020 AASHTO HVR*



FINAL THOUGHTS

- Rowan CEE looks forward to forging a collaborative relationship in which our students from are positioned for securing exciting jobs and making a difference in people's lives.
- The core tenets of Rowan CEE, “Teamwork, Leadership, and Community,” will inform the foundation of our relationship