

Graduate Research Opportunities in

Transportation Engineering

the MS in Engineering program at Rowan University



**Rowan University** is located in Glassboro, NJ, 30 minutes from Philadelphia and one hour from the Jersey Shore. The college of engineering at Rowan University is renowned for its multidisciplinary, hands on approach to engineering education. The college has an excellent student to faculty ratio, allowing MS Students to receive significant individual attention from faculty.

**The Transportation Engineering focus** is available to graduate students in the Civil and Environmental Engineering program. The sequence involves three semesters and one summer of interdisciplinary coursework, plus research that culminates in a Master’s Thesis. Students pursuing this focus will develop a strong foundation in transportation engineering through 24 credit hours of coursework, complemented by research - where the student works closely with one or more faculty members. Most projects are externally sponsored, allowing students to receive tuition scholarships and stipends, while working on cutting-edge topics. Depending on the chosen electives and research topic, this focus is appropriate for students interested in, pavements, transportation, structures, or land development.

**Recent graduates** have gone on to careers in government and industry, or pursued doctorates.

Typical Course of Study

Fall Semester	
3 cr.	Elective
3 cr.	Elective
3 cr.	Research
Spring Semester	
3 cr.	Elective
3 cr.	Elective
3 cr.	Research
Summer	
3 cr.	Engineering Applications of Analysis
3 cr.	Strategic Engineering Management
Fall Semester	
3 cr.	Elective
3 cr.	Research

Electives offered in

- Pavement Rehabilitation
- Transportation Operations and Planning
- Foundation Engineering
- Bridge Engineering
- Urban Planning
- Metro Regional Planning
- Geographic Information Systems
- Pavement Analysis and Evaluation
- Prestressed Concrete Design
- Finite Element Analysis
- Sustainable design in engineering
- Principles of Non-Destructive Evaluation
- Automotive Engineering

Funding Opportunities

Research assistantships are awarded competitively, based on funded projects. For full consideration for a research assistant position, we recommend that your application is submitted by March 1<sup>st</sup>. Initial decisions on funding are typically made in April. However, additional offers are sometimes made later, as additional sources of funding are secured.

Recent Funded Projects

Compatibility of crossing gate arms and overhead catenary lines; Energy absorbing utility poles; Fatal Accidents Analysis, Evaluation of modified binder; Evaluation of warm mix asphalt; FEA analysis of flexible airport pavements; Motorcycle Crash Analysis, Mechanistic-empirical design of asphalt pavements; Performance of subbase materials in airport runways; Identification of source of rutting in a pavement system. Evaluation of diesel retrofit technologies to reduce in-cabin particulate matter concentrations. Evaluation of the performance of biodiesel blends in locomotives and airport ground support vehicles. Evaluation of performance of glass beads in pavements markers.

Affiliated Faculty

- Dr. Krishan Bhatia (ME) – Alternative Powertrains
- Dr. T.R. Chandrupatla (ME) – FEA, optimization
- Dr. Douglas Cleary (CEE) – Reinforced concrete
- Dr. Ralph Dusseau (CEE) – Bridge engineering
- Dr. John Hasse (Geography) – Transportation Planning
- Dr. Kauser Jahan (CEE) - Environmental Engineering
- Dr. Peter Jansson (ECE) – Sustainable Design
- Dr. Robert Hesketh (ChE) – Transportation Emissions
- Dr. Shreekanth Mandayam (ECE) – Image Analysis, NDE
- Dr. Yusuf Mehta (CEE) – Transportation Engineering
- Dr. William Riddell (CEE) – Railway engineering, durability
- Dr. Beena Sukumaran (CEE) – Geotechnical Engineering

