

Geotechnical 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 Geotechnical 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 geotechnical 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, geotechnical, materials, pavements, transportation, structures, land development or a completely multidisciplinary focus.

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

Foundation Engineering
Earth Retaining Systems
Pavement Rehabilitation
Transportation Operations and Planning
Bridge Engineering
Urban Planning
Metro Regional Planning
Geographic Information Systems
Pavement Analysis and Evaluation
Prestressed Concrete
Finite Element Analysis
Introduction to Digital Image Processing
Sustainable design in engineering
Advanced Topics in Pattern Recognition
Principles of Non-Destructive Evaluation
Artificial Neural Networks

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 February 1st. 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

FEA analysis of flexible airport pavements; Behavior of Particulate Media; Image Analysis and Discrete Element modeling of granular media; Energy absorbing utility poles; Fatal Accidents Analysis, Evaluation of modified binder; Evaluation of warm mix asphalt; 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.

Affiliated Faculty

Dr. Krishan Bhatia (ME) – Transportation Emissions
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

For More Information:

<http://engineering.rowan.edu/>

Application Materials:

http://www.rowan.edu/graduateschool/prospective_students/grad_application/index.htm

