LEARNING. DISCOVERY. INNOVATION.

RESEARCH AND GRADUATE STUDIES
Connect
rigorous research to real world results.

Commit
to building an expertise that brings theory into powerful practice.

At the University of Georgia College of Engineering we’re committed to offering rich opportunities for interdisciplinary research, collaboration and student life.

We’re a community of visionary researchers, educators and learners embedded in one of the nation’s leading land-grant liberal arts universities.

We’re working to
• Create a vibrant environment for learning, discovery, and innovation that relies on teamwork, leadership, and effective communication
• Reshape the impact of engineers for the 21st century by inspiring students to reach their full potential
• Create breakthroughs by excellence in education and research
• Pursue bold, collaborative research to identify and solve the challenges of our time.

We’re motivated by our resolve to help make a purposeful and rounded contribution to help bring about a more capable, responsible and resilient global society.

We look forward to connecting with you: whether you are a new faculty member or post-doc looking for the next step in your career; a public or private sector organization wanting to partner in research or looking for an exceptional workforce; or a graduate student looking for the flexibility to shape your own experience, engage in highly interdisciplinary research, and build strong, one-on-one relationships with our world-class faculty.

Read on to learn how you can join the UGA College of Engineering in our search for solutions that result in healthier people, a more secure future, and stronger communities.
At the UGA College of Engineering, our faculty and students are pursuing bold, collaborative research through dynamic partnerships to identify and solve the challenges of our time. These partnerships include collaborations with university researchers, government, industry, non-profit organizations, and sponsors across the nation and around the world.

OUR FACULTY BRING RECOGNIZED WORLD-CLASS EXPERTISE TO EACH RESEARCH COLLABORATION.

The faculty include two National Academy of Engineering (NAE) members and one Presidential Early Career Awardee for Scientists and Engineers (PECASE). Many faculty members are Fellows in their professional societies and have received recognition for their contributions to their disciplines. More than 10% of our tenure track faculty are National Science Foundation (NSF) CAREER awardees. This recognition speaks not only to the quality of our faculty but also to their commitment to educating the next generation of professionals through their mentorship of graduate students and the training they receive through their research.

As an integral part of a leading land grant institution, we regularly team with colleagues on UGA’s campus. UGA College of Engineering faculty and students are engaged in dynamic research with a variety of partners including the College of Agricultural and Environmental Sciences, the Franklin College of Arts and Sciences, the Odom School of Ecology, the College of Veterinary Medicine, the College of Public Health, the School of Pharmacy, and the Terry College of Business.
Engineering Education Transformations Institute (EETI)

EETI fuses a vibrant culture and discourse around educational innovation in UGA's College of Engineering with cutting-edge engineering education research to transform engineering programs, educational practices, and institutional cultures, locally and nationally. EETI is a community of faculty, staff, engineering education researchers, graduate, and undergraduate students from across the College brought together by a passion for improving the educational experience of students. In addition, EETI offers a Ph.D. with emphasis in Engineering Education and Transformative Practice.

EETI.UGA.EDU

New Materials Institute (NMI)

An estimated 6.8 million metric tons of trash is generated globally every day. Much of that waste originates from single-use packaging used for shipping materials, water bottles, food, pharmaceuticals and cosmetics. NMI works with partners in industry, business, government, foundations and other organizations to rethink “trash” before it becomes trash, with a focus on reducing waste by using fully biodegradable, bio-based materials as well as proactive materials management, also known as circular materials management.

NEWMATERIALS.UGA.EDU
Institute for Resilient Infrastructure Systems (IRIS)

Communities around the world are struggling to rethink, rebuild, and revitalize infrastructure systems in an era of rapid environmental and social change. The University of Georgia established IRIS with these challenges in mind. IRIS brings together an interdisciplinary team of experts with extensive experience in creating pragmatic and effective infrastructure strategies that reduce hazards vulnerability, provide water security, reduce pollution, and restore ecosystems while providing additional social benefits and engineering functions.

IRIS.UGA.EDU

Georgia Informatics Institutes for Research and Education (GII)

The explosion of digital information has created new opportunities in so many fields – from the sciences to engineering to the humanities. The goal of the Georgia Informatics Institutes is to help faculty use informatics in their research and instruction. GII is UGA’s hub for informatics research and instruction that promotes collaboration among faculty members and gives students the knowledge and skills they need to fill some of today’s most in-demand positions.

GII.UGA.EDU

During his time as a doctoral student in the University of Georgia College of Engineering, JITENDRA PANT published 15 articles in peer-reviewed journals including Scientific Reports. The translational nature of his work led to seven patent applications for innovations including antibacterial wound dressings, long-term drug delivery, and ultra-slippery antibacterial surfaces.

“I left my job in a pharmaceutical company because I wanted to get my Ph.D. I want to make a difference.”

Jitendra Pant, Ph.D
BIOENGINEERING AND BIOMEDICAL ENGINEERING, 2018
BIOMEDICAL RESEARCH ENGINEER, UNIVERSITY OF GEORGIA
Plant Phenomics and Robotics Center (PPRC)

The PPRC is developing robotics technologies to accelerate the application of genome information in the improvements of plants that product food, fuel, feed, and fiber. The Center is an interdisciplinary collaboration between engineering, genomics, plant breeding, and computational sciences. The center provides experiences and builds partnerships that target the need for cross-trained scientists and technology adoption at the interface of plant science and technology.

PPRC.UGA.EDU

Center for Cyber–Physical Systems (CCPS)

CCPS is developing partnerships between academia, industry and government to advance research and education necessary to solve challenges in cyber–physical systems analytics and security and transition the technology into engineering practice and real–world applications. The center is leading interdisciplinary innovations on the intersecting grand challenges of energy, environment, food and health.

CPS.UGA.EDU
NATIONAL COLLABORATIONS

Our commitment to solving some of the world’s greatest challenges reaches across disciplines and across the nation. Researchers in the University of Georgia College of Engineering are engaged in vital collaborations with other universities and industry.

NSF Center for Bioplastics and Biocomposites

UGA’s New Materials Institute, housed in the College of Engineering, is the newest member of the National Science Foundation’s Center for Bioplastics and Biocomposites, or CB2, an Industry/University Cooperative Research Center. As a CB2 site, the New Materials Institute (NMI) contributes research capabilities in the areas of new biodegradable polymers and additives, advanced fibers, durable coatings, and finishes.

NSF Center for Cell Manufacturing Technologies (CMaT)

Researchers from UGA’s Regenerative Bioscience Center, which includes several faculty members from the College of Engineering, are working to transform the manufacturing of cell-based therapeutics. This collaboration between scientists, engineers and manufacturers is focused on the delivery of cures for escalating chronic diseases and bringing them to patients. UGA is a site of CMaT, an NSF Engineering Research Center (ERC). CMaT is an interdisciplinary consortium consisting of more than 100 members working in universities, industry and government agencies.
TO THE RISK-TAKERS, ENTREPRENEURS AND BIG-DOERS, WE SEE YOU.

By teaming with industry and growing new startup businesses, we develop the reach and impact to truly make a difference in people’s lives.

At the University of Georgia, we are committed to a vibrant and inclusive ecosystem of innovation and entrepreneurship. Known nationally for our strong innovation ecosystem, UGA ranks in the top five among all U.S. universities in new products reaching the marketplace and in the top 10 for technology licensing productivity. More than 675 products based on UGA research have been introduced to the marketplace, and more than 160 companies have been started. The university offers an industry network, an accelerator program, an entrepreneurship certificate as well as a wide range of entrepreneurship programs, mentoring and startup support to equip students and faculty with the tools and resources they need to pursue their own new ventures or build industry partnerships.

Industry Engagement
The University of Georgia Office of Industry Engagement connects businesses with UGA researchers to create solutions that help those businesses thrive. Industry Engagement coordinates sponsored research projects, offers expertise in technology licensing, helps industry tap into UGA’s entrepreneurial community, and connects industry to UGA’s state-of-the-art research facilities and analytical services.

UGA Innovation Gateway
As the university’s intellectual property licensing and startup support arm, Innovation Gateway streamlines the path from the laboratory or the field to the marketplace, ensuring that University of Georgia research discoveries reach their full potential for public benefit.

Innovation Gateway guides entrepreneurs in transforming their ideas into viable companies by providing business education, coaching and mentoring, and access to funding, equipment, and laboratory space.

RESEARCH.UGA.EDU/GATEWAY

COLLEGE OF ENGINEERING
INDUSTRY AND BUSINESS PARTNERS INCLUDE:

- Boehringer-Ingelheim
- Kimberly-Clark
- Futamura
- Walmart Foundation
- Shaw Industries
- W.L. Gore and Associates
- Gulfstream Aerospace
- Tencate
- Sealed Air
- AstraZenica
- ReadyMix USA
- Delta Airlines
- Georgia Power/Southern Company
- Georgia Pacific
- Danimer Scientific

RESEARCH.UGA.EDU/INDUSTRY
UGA Startup Program

The University of Georgia Startup Program provides UGA faculty and students support to launch and grow UGA startup companies. These startups are typically built around intellectual property arising from research and student projects. The Startup Program is designed as a flexible and tailored approach to each entrepreneurial project to provide actionable steps that have proven to result in successful companies and experiences.

RESEARCH.UGA.EDU/GATEWAY/RESEARCHERS/STARTUPS

UGA I-Corps

As a National Science Foundation Innovation Corps (I-Corps) site, the University of Georgia provides resources for the creation, development, and nurturing of entrepreneurial teams interested in transitioning their ideas, technologies, devices, processes or other intellectual activities into the marketplace.

UGA I-Corps offers a variety of resources to support teams accepted into the program, including an intensive, six-week Accelerator to help teams make sure their business model actually meets the needs of customers, access to a co-working space, access to a product development and prototyping lab, and up to six months of business and product mentoring.

UGAICORPS.UGA.EDU

Innovation District

The University of Georgia is committed to finding solutions to pressing challenges, to developing new ways of thinking and doing, and to supporting the jobs, companies and industries of the 21st century. As part of this vision, UGA is creating a new hub — or district — on campus to foster innovation, entrepreneurship, creativity and industry collaboration. This energetic innovation district at the interface of North Campus and downtown Athens will include an interconnected set of facilities offering a broad range of spaces and amenities for a high level of collaboration between faculty, students, industry and community partners.

INNOVATION.UGA.EDU

“...

We created a way for consumers to find out easily about the end of life of their products through social media and artificial intelligence. You can take a picture of anything you have a question about, send it to us on Facebook, Twitter or ask Amazon Alexa and we can give you an immediate response based on where you are.”

Katherine Shayne, M.S.
ENGINEERING ’18
CO-FOUNDER/CEO, CAN I RECYCLE THIS, INC
CHARTERED BY THE STATE OF GEORGIA IN 1785, THE UNIVERSITY OF GEORGIA LAUNCHED OUR NATION’S GREAT TRADITION OF WORLD-CLASS EDUCATION FOR ALL.

As one of America’s “Public Ivies” and a Top 10 Best Value in public higher education, the University of Georgia houses a College of Engineering that is tackling some of the world’s most pressing challenges—from combating infectious disease and securing the global food supply to advancing economic growth and protecting the environment.

Our faculty and graduate students work together on research that advances fundamental understanding and results in new technologies and innovations that improve the quality of life. Students in our graduate programs learn from our faculty in the classroom and the lab and engage in and make important contributions to research that inspires them.

CONNECT
a cutting-edge program to a time-honored university.

COMMIT
to what inspires you.
GRADUATE DEGREE PROGRAMS

**Master of Science Degree Programs**

- MS Agricultural Engineering*
- MS Civil and Environmental Engineering*
- MS Biochemical Engineering
- MS Biological Engineering
- MS Engineering
- MS Engineering – Electrical and Computer Engineering Emphasis*
- MS Engineering – Mechanical Engineering Emphasis*

*Non-thesis option also available*
Doctor of Philosophy Degree Programs

- Ph.D. in Biological and Agricultural Engineering
- Ph.D. in Engineering
- Ph.D. in Engineering – Biochemical Emphasis
- Ph.D. in Engineering – Biomedical Emphasis
- Ph.D. in Engineering – Dynamic Systems and Controls Emphasis
- Ph.D. in Engineering – Electrical and Computer Engineering Emphasis
- Ph.D. in Engineering – Energy Systems Emphasis
- Ph.D. in Engineering – Environment and Water Emphasis
- Ph.D. in Engineering – Mechanics and Materials Emphasis
- Ph.D. in Engineering – Fluid and Thermal Systems Emphasis
- Ph.D. in Engineering – Resilient Infrastructure Systems Emphasis
- Ph.D. in Engineering – Engineering Education and Transformative Practice Emphasis

To learn more about our graduate degree programs, including admissions criteria and timelines, visit:
ENGINEERING.UGA.EDU/GRADUATE-PROGRAMS
Through my program I’ve been incredibly fortunate to work on interdisciplinary teams with people from all over the world. Grad school trains us to have engineering expertise in our specific fields, but at UGA, we also gain invaluable skills like communicating, working with people from different backgrounds, and applying engineering approaches in real world situations.”

- Amy Brooks
PH.D. CANDIDATE
THE CLASSIC CITY

There is something for everyone in the Classic City of Athens, Georgia. Whether you are a fan of the distinctively local restaurants, the locally-roasted coffee, the internationally-known music scene, or the city’s many historic treasures, Athens is the classic college town – a perfect place to work, live and play.

UGA’s North Campus is just a few steps away from downtown Athens, giving students easy access to Athens’ thriving culture. More than 65 specialty shops, 55 restaurants and cafes, and 40 taverns and music venues line the streets of downtown. Over the years, Athens has become a cultural hotspot, and a mecca for music and the arts.

Located in the rolling foothills of the northeast Georgia mountains, Athens is only an hour and a half from Atlanta, the ninth-largest metropolitan area in the U.S. and home to Hartsfield–Jackson Atlanta International Airport.
Here, you can connect and engage with other scholars through more than 800 student organizations, including all major engineering professional society student organizations, SWE and NSBE. UGA is also home to the Graduate Student Association (GSA), Graduate & Professional Scholars (GAPS), and Women in Science (WiSci). UGA’s department of International Student Life offers transition and support, programming and outreach, and leadership and engagement activities to to build an inclusive campus.

The Ramsey Student Center for Physical Activities is one of the largest student athletic and recreational facilities in the U.S. The center includes three gyms, three pools, an indoor track, a 44-foot-high climbing wall, a 14-foot bouldering wall, 10 racquetball courts, two squash courts, eight full-length basketball courts, and 19-thousand square feet of weight-training space.

UGA’s Recreational Sports Complex hosts intramural sports, academic classes, and outdoor recreation. The complex includes nine grass fields, 15 tennis courts, and an outdoor challenge course. The adjacent Oconee Forest Park and Lake Herrick feature walking and running trails and an accessible dock for canoes, kayaks, and paddleboards.

THE BIRTHPLACE OF PUBLIC HIGHER EDUCATION IN AMERICA

The natural and historic beauty of UGA’s Athens campus rivals any other school in the nation. Spanning 762 acres and featuring 465 buildings, the campus borders historic downtown Athens and features centuries-old buildings nestled among the imposing oaks of the original campus quadrangle.
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<td>LAWRENCE HORNAK, PH.D.</td>
<td>MARGARET SAPP, M.ED.</td>
<td>CRYSTAL LEACH, PH.D.</td>
</tr>
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<td>Associate Dean for Research and Graduate Studies</td>
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<td>Director, Industry Collaborations Phone: 706-542-2289 Email: <a href="mailto:csleach@uga.edu">csleach@uga.edu</a></td>
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