POWERING WHAT'S NEXT

Georgia School of Electrical and Tech Computer Engineering



UNDERGRADUATE PROGRAM

WE ARE THE TINKERERS, CREATORS, MAGIC-ZMAKERS





THAT MAKE CHANGE HAPPEN.



ROBC

RIUM

THE POWER SOURCE AT THE CENTER OF DREAMING, DESIGNING, GETTING TOONE.

[THIS IS GEORGIA TECH ECE]

Electrical engineering and computer engineering are at the core of just about every technology. Harnessing the power of electricity to advance the modern world, electrical engineering involves the design of devices and systems, from nanoscale computer chips to multinational communications systems. Spanning across the fields of electrical engineering and computer science, computer engineering combines the advanced intelligence of computer systems with the fundamental aspects of electrical engineering to deliver intricate and expansive solutions.

That smartphone in your hand. That magical new technology that's helping to cure cancer. That elegant solution to deliver clean drinking water. Even that "cloud" where all your data, music, and documents live. At the Georgia Institute of Technology, electrical and computer engineering is all about turning...

"WHAT IF" INTO "WHAT'S NEXT"

We are by nature a curious and passionate bunch — **tinkerers, creators, and magic-makers.** We love the power and possibilities that Georgia Tech ECE unlocks — the elemental solutions and expansive ideas at the core of just about everything. In many ways, the world counts on us to be the power source that fuels modern technology.







[SMART, MADE SMARTER]

THE GEORGIA TECH ECE EXPERIENCE

Georgia Tech ECE students are among the brightest in the country — fresh, agile minds that join an established community of creative, industrious thinkers and doers. The undergraduate program is built to feed and nurture those strengths, delivering a curriculum that is unsurpassed in flexibility, depth, and scope.

Interdisciplinary by nature, electrical and computer engineers create lasting impacts across all of modern technology. Our programs are designed to help students build a solid foundation in the fundamentals of engineering science, then hone the skills needed to put these principles into action — solving real-world issues and "creating the next." Curriculum threads allow students to create tailored programs that connect with specific — and incredibly varied — areas of interest. Majoring in computer or electrical engineering provides students with broad knowledge and versatility that translate to jobs in virtually any industry.

LIMITLESS APPLICATION, REAL DEMAND

Across the board, electrical and computer engineers are in high demand — the need for qualified graduates is already outpacing the output and labor forecasts point to continued growth. As one of the consistently top-ranked programs in the world, Georgia Tech graduates have a reputation that makes our students some of the most sought after in the country.

DIVERSE INTERESTS, INTERESTING OPTIONS

Our undergraduate programs are organized into a variety of disciplines that encompass the full depth and breadth of electrical and computer engineering. In addition to required courses, our students are offered the ability to customize studies with a range of electives that follow thematic threads.





[INNOVATIVE EDUCATION]

UNDERGRADUATE RESEARCH

Georgia Tech ECE's Office of Undergraduate Research gives students real-world research experience in fields directly related to their major, earning credit or financial compensation along the way. To learn more about undergraduate research, visit <u>www.ece.gatech.edu/undergraduateresearch</u>

HANDS-ON EDUCATION

We are a leader in integrating student-owned devices into lecture-based courses. Our curriculum includes classes that use a digital acquisition board or microcontroller kit, allowing students to work on projects and experiments both in and out of the classroom.

Georgia Tech ECE is home to the largest ECE-specific makerspace in the country, the Interdisciplinary Design Commons (IDC). This 15,000-square-foot, state-of-the-art makerspace is student run and caters specifically to electronics and computer engineering design and innovation. To learn more about the IDC, visit <u>www.ece.gatech.edu/GTIDC</u>

The School of ECE also houses The Robotarium – the world's only open-source swarm robotics test bed. The platform is freely accessible to anyone who wants to upload and test their ideas on real robotics hardware. To learn more about the Robotarium, visit <u>www.robotarium.gatech.edu</u>

REAL-WORLD EXPERIENCE

Senior undergraduate students apply knowledge and skills from coursework to solve real-world challenges in capstone design. Students can choose between a two-semester capstone sequence or a one-semester capstone course preceded by a stand-alone design course at the junior level. Working on their choice of interdisciplinary or monodisciplinary teams, students complete a project requiring specification, design, implementation, and testing.





COMMUNICATING COMPLEX IDEAS

Far too often, engineering curricula focus solely on technical training, and students are expected to inherently know how to communicate their ideas effectively. Through the Undergraduate Professional Communication Program (UPCP), the School focuses on the development of both essential skills and technical skills. This innovative approach to preparing our students for the real world produces well-rounded, multidimensional engineers who are both technical experts and skilled communicators with the ability to translate their ideas for a variety of end users. To learn more about the UPCP, visit www.ece.gatech.edu/UPCP

ENTREPRENEURIAL CONFIDENCE

In addition to preparing students to hit the ground running in industry, we also equip them with one of the most important life skills — the ability to create their own jobs. Competitions like InVenture Prize and popular programs such as CREATE-X teach students how to create a startup from customer discovery all the way to a minimum viable product. To learn more about CREATE-X, visit <u>www.create-x.gatech.edu</u>

[REWARDING OPPORTUNITIES]

A vibrant community of like-minded faculty and students welcomes new students to Georgia Tech ECE. Whether their interests lie in pursuing undergraduate research, studying overseas, or joining a lively student group, many opportunities abound to supplement traditional academics and enhance their experience.

STUDY OR WORK ABROAD, LIKE 50% OF GEORGIA TECH STUDENTS DO.

JOIN THE COUNTRY'S LARGEST VOLUNTARY CO-OP/ INTERNSHIP PROGRAM.

PARTICIPATE IN ONE (OR MORE) OF GEORGIA TECH'S **300+ STUDENT** ORGANIZATIONS.

TO LEARN MORE ABOUT ECE STUDENT ORGANIZATIONS, VISIT: WWW.ECE.GATECH.EDU/GTECEORGS



APPLY TO...

Inquiries regarding admission to Georgia Tech should be addressed to: Office of Undergraduate Admission | Georgia Institute of Technology Atlanta, GA 30332-0320 Phone: 404-894-4154 | Email: admission@gatech.edu <u>www.admission.gatech.edu</u>

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[ATLANTA — AT THE CENTER OF IT ALL]

Georgia Tech is located in the heart of Atlanta — a truly unique city and a hub for technology, industry, and entrepreneurship. As a major international access point and home to a number of Fortune 500 companies, Atlanta is an amazingly diverse city, embracing a vivid tapestry of cultures and lifestyles. Atlanta integrates amazing natural beauty with a variety of urban landscapes, from soaring cityscapes to cozy, local neighborhoods. Atlanta's cultural and social experiences have something to offer everyone, including professional sports teams, music, art and food festivals, expansive public parks, a symphony orchestra, opera, live theater and dance troupes, superb restaurants, and exciting nightlife.

SCHOOL OF ELECTRICAL [+] COMPUTER ENGINEERING

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