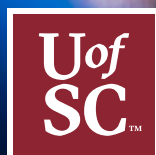
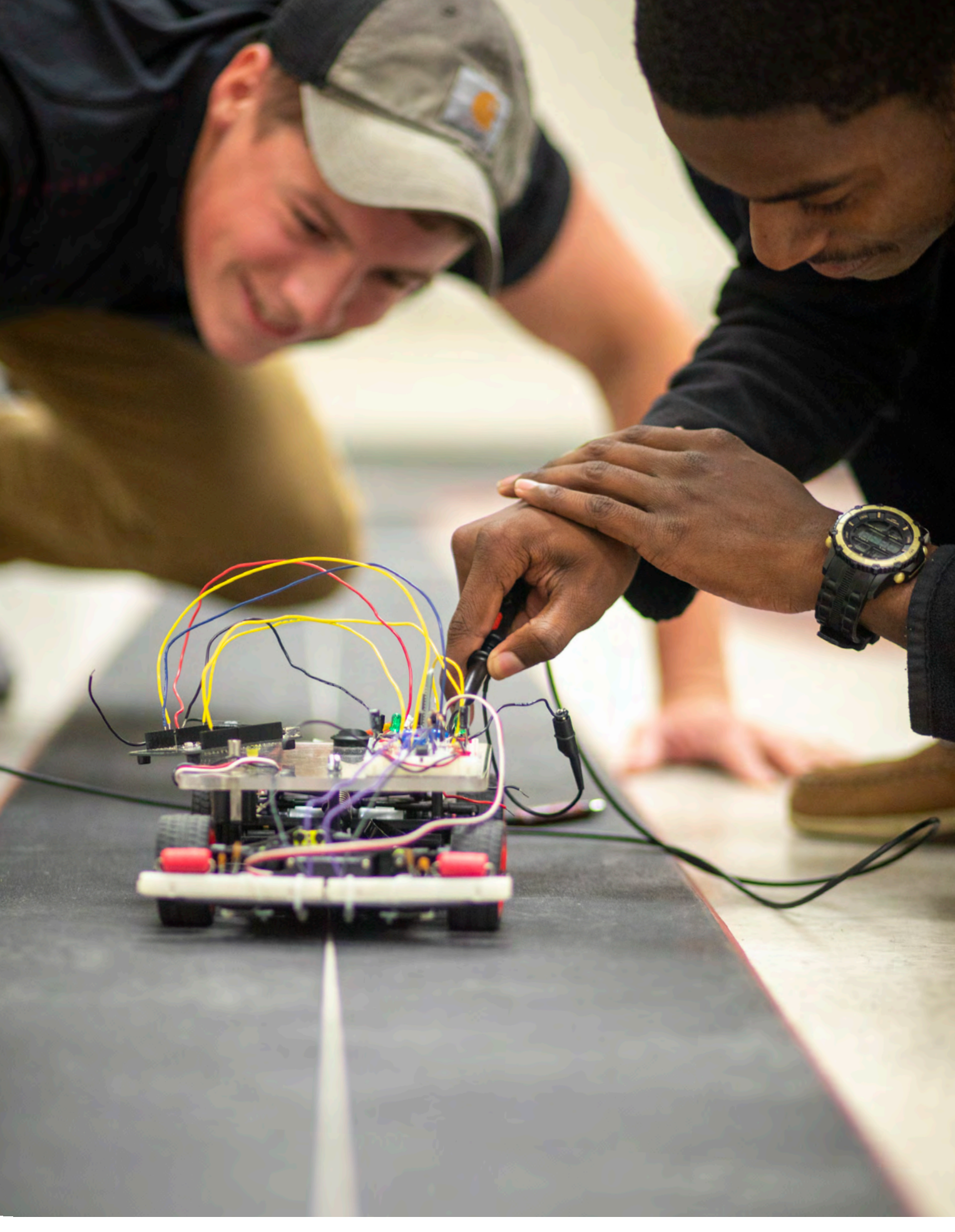




*The future
is bright*

University of South Carolina
**College of Engineering
and Computing**





Working together to solve the problems of tomorrow.

WORKING ON THE EDGE OF WHAT'S NEXT.

Turn the technical into the functional. Logic into language. And, with a bit of creativity, the complex into the captivating.

There's no doubt that engineering and computing will play a central role in addressing the issues our world will face in the future.

No matter your path, you'll be challenged to turn real-life problems into savvy industry solutions in the College of Engineering and Computing at the University of South Carolina.

We're looking toward
what's

NEXT.

And the future is bright.

Find where you fit.

Whether you're an engineering or a computing student, at UofSC you will find topics that interest you, faculty members that will challenge you and experiences that will propel you into a technology career of the future.

ENGINEERING PROGRAMS

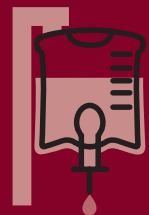
AEROSPACE ENGINEERING

Design, manufacture and test aircraft or aerospace systems and components.

Program enrollment: **73**



BIOMEDICAL ENGINEERING



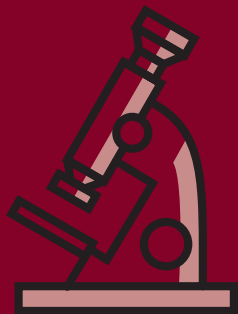
Combine the innovative skills of engineering with medical and biological sciences to improve healthcare, from diagnostics to treatment.

Program enrollment: **260**

CHEMICAL ENGINEERING

Create processes and products that are safe, environmentally-friendly, energy-efficient and economical.

Program enrollment: **289**



CIVIL ENGINEERING

Analyze, plan, design and build the infrastructure of our society.

Study in areas such as environmental, geotechnical, structural, water and transportation.

Program enrollment: **352**



ELECTRICAL ENGINEERING

Apply the principles of electricity, electronics, and electromagnetics to the flow and transformation of information and energy.

Program enrollment: **214**



MECHANICAL ENGINEERING

Design, develop, build and test systems with motion that advance a broad range of energy, manufacturing and research fields.

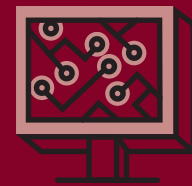
Program enrollment: **813**



COMPUTING PROGRAMS

COMPUTER ENGINEERING

Integrate principles of computer science and electrical engineering to develop computer hardware and software.



Program enrollment: **187**

COMPUTER INFORMATION SYSTEMS

Work at the intersection of business and technology with a focus on practical applications of computing to support organizations.

Program enrollment: **161**



COMPUTER SCIENCE

Design large and complex computer software using the latest technologies and advance the underlying scientific principles of computation.

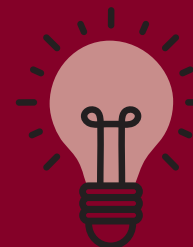


Program enrollment: **579**

INTEGRATED INFORMATION TECHNOLOGY

Integrate the areas of system design, network administration, database systems, website design and management, corporate training and health information technology.

Program enrollment: **264**



MINORS

Minors within the CEC include:

- AEROSPACE ENGINEERING
- CHEMICAL ENGINEERING
- APPLIED COMPUTING
- COMPUTER SCIENCE
- DATA SCIENCE
- ELECTRICAL ENGINEERING
- INTEGRATED INFORMATION TECHNOLOGY
- NUCLEAR ENGINEERING

Engineering and computing students can also choose from more than 80 minors from across the university.

GRADUATE PROGRAMS

- AEROSPACE ENGINEERING
- BIOMEDICAL ENGINEERING
- CHEMICAL ENGINEERING
- CIVIL & ENVIRONMENTAL ENGINEERING
- COMPUTER ENGINEERING
- COMPUTER SCIENCE
- CYBERSECURITY CERTIFICATE
- ELECTRICAL ENGINEERING
- ENGINEERING MANAGEMENT
- ENTREPRENEURIAL ENGINEERING
- HEALTH INFORMATION TECHNOLOGY
- INFORMATION SECURITY
- MECHANICAL ENGINEERING
- NUCLEAR ENGINEERING

DEGREE OPTIONS

Undergraduate students can complete both the bachelor's and master's degrees in as few as five years. The use of dual credit can reduce the total enrollment by one semester.



Guiding you to your career.

GET HELP WITH PROFESSIONAL SKILLS AND LAND YOUR DREAM INTERNSHIP, CO-OP OR JOB.

The CEC has its own dedicated Career Center to help students polish their professional skills and land that dream internship or job. Past students have worked with companies like Boeing, Bosch, Capgemini, Cigna, Dominion Energy, Fluor, Naval Information Warfare Center, Vanguard and so many more!



ACCELERATION AERODYNAMICS ALGORITHM ARTIFICIAL INTELLIGENCE AUGMENTED REALITY AUTONOMOUS VEHICLES BANDWIDTH BATTERY BIOCATALYSIS BIONICS BINARY BUSINESS CACHE CAD CAPSTONE DATA CODING COMPOSITE MATERIALS CYBERSECURITY DATA DRONES DESIGN ELECTROCHEMISTRY FOREVER TO TECHNOLOGY MICROELECTRONICS NUCLEAR PROGRAM RESEARCH ROBOTICS SWEARINGEN UX ZIP FILE A INTELLIGENCE BATTERIES BIODESIGN CODING ELECTROCHEMISTRY FOREVER TO TECHNOLOGY MICROELECTRONICS NUCLEAR PROGRAM RESEARCH ROBOTICS SWEARINGEN UX ZIP FILE A INTELLIGENCE BATTERIES BIODESIGN CODING ELECTROCHEMISTRY FOREVER TO TECHNOLOGY MICROELECTRONICS NUCLEAR PROGRAM RESEARCH ROBOTICS SWEARINGEN



JOANNE WU
B.S. IN MECHANICAL ENGINEERING, 2018

Associate Mechanical Engineer, Ball Aerospace Broomfield, CO

Joanne developed a passion for mechanical design at the University of South Carolina and now works on designing mechanical ground support equipment for objects that are sent into space.

“The CEC taught me the skills I needed to become a successful engineer, but that’s only the start. Thanks to USC, I got to study and work all around the world. I made lifelong friends and had unforgettable experiences that helped me grow into the person I am today.”



MICHAEL MYERS
B.S. ELECTRICAL ENGINEERING '14
M.S. ENGINEERING MANAGEMENT '16

Chief Information Officer and Director of Information Technology, Denmark Technical College Denmark, SC

“My career has been filled with being exposed to countless possibilities and to be in a position to provide that to the next generation is priceless. At the end of the day, if I am able to inspire one student, I believe that I have fulfilled a part of my life’s purpose.”

“My time at the CEC helped mold me into the person I am today. The time spent conquering every obstacle improved my work ethic and pushed me to always give it my all!”



JAMES M. LANDRETH, P.E.
B.S. IN COMPUTER INFORMATION SYSTEMS, 2007

Principal Software Engineer, Microsoft Seattle, WA

Ryan builds web apps & services for Microsoft 365. He loves the challenge of solving customer problems at an enormous scale.

“The peers and professors I met at the CEC are the people who shaped my love for computer science and software engineering.”

Because you can't change the world sitting behind a desk.

EXPLORE. RESEARCH. NETWORK.

The best way to gain hands-on experience is outside of the classroom. Get involved with one of our engineering or computing student organizations. Take a Maymester to Thailand. Get involved with undergraduate research. Intern in industry. Your possibilities in the CEC are limitless.



UNDERGRADUATE RESEARCH

Research gives students hands-on learning experience while working with faculty experts. Undergraduate students make important contributions to our research efforts by completing independent study courses, working in grant-funded research positions, and participating in university-sponsored research programs. Opportunities such as these can make an enormous impact on a student's career.



“Some things just can't be learned in a textbook... and you can only absorb the knowledge from someone who has been in the field for some time. The combined experience and knowledge of the scientists I was working with was more valuable than any class. This is what internships are all about.”

ANDREW ANDERSON
Mechanical Engineering
Intern at NASA Langley

INTERNSHIPS AND CO-OPS

Our engineering and computing students have skills that are in high demand, and companies work with us to find interns like Andrew Anderson that build, research and create important solutions to their business problems.

Andrew, pictured above, spent the summer at NASA Langley Research Center working with their automated fiber placement composite machine.



CEC students stand with their concrete canoe in Lake Murray. Their carefully designed boat competed in the annual ASCE competition.

Keeping our students afloat.

GET THE SUPPORT YOU NEED, RIGHT HERE IN THE CEC.

In the CEC, every student is set up for success from day one. Students begin the school year at **Big Wednesday**, where they can connect with CEC student organizations, ride a Segway, learn about campus resources, and meet their first-year advisors.

Drop-in **tutoring sessions** are available throughout the year in the Swearingen Center. Plus, our secured **computer labs** are always open, meaning students can safely access any specialized program they need, 24/7.

Professors, student services staff, and **peer mentors** are always available to take those first-year jitters away.



LIVING & LEARNING COMMUNITY

Where students live their first year of college can affect their success. The Engineering and Computing Community is an on-campus residential community designed to enrich the educational and residential environment for students in the college.

STUDENT ORGANIZATIONS

The CEC is home to more than 40 engineering and computing student organizations, including:

- American Institute of Aeronautics and Astronautics
- American Institute of Chemical Engineers
- American Society of Civil Engineers
- American Society of Mechanical Engineers
- Association for Computing Machinery
- Association of Information Technology Professionals
- Biomedical Engineering Society
- Cyber Security Club
- Engineers Without Borders
- Hands on Prosthetic Engineering (HOPE)
- Institute of Electrical and Electronics Engineers
- Minorities in Computing
- National Society of Black Engineers
- Society of Hispanic Professional Engineers
- Society of Women Engineers
- Theta Tau Professional Engineering Fraternity
- Women in Computing



We're Cocky for a reason.

As a student at the college of Engineering and Computing, there's a lot to be proud of. Top-notch faculty, extraordinary students and our many opportunities to take learning out of the classroom are just a few reasons to attend UofSC.



By the numbers:

3,192
UNDERGRADUATE STUDENTS

160
FACULTY MEMBERS



1 IN 6
HONORS STUDENTS ENROLLED IN THE CEC

1st
AEROSPACE ENGINEERING UNDERGRADUATE PROGRAM IN SC

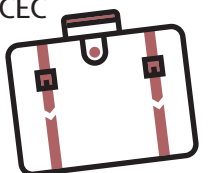



41 DIFFERENT STUDENT CLUBS AND ORGANIZATIONS WITHIN THE COLLEGE



68%
OF MAY 2019 CEC GRADUATES REPORTED THAT THEY HELD AN INTERNSHIP WHILE A CEC STUDENT.

\$65K
AVERAGE STARTING SALARY OF A CEC GRADUATE



Next steps:

- 1 VISIT US** – The best way to get to know the college is to visit virtually or in person. cec.sc.edu/visit
- 2 APPLY** – Start your Gamecock education. Apply to the university to become a student. sc.edu/apply
- 3 APPLY** – Departmental scholarship applications are due March 15. cec.sc.edu/scholarships
- 4 DECIDE YOUR MAJOR** – The college offers 10 academic programs for you to major in. Here you begin in your major in the first year. cec.sc.edu/academics
- 5 APPLY FOR HOUSING** – Consider living in the Engineering and Computing Community. sc.edu/housing
- 6 JOIN MENTORING PROGRAM** – The college's volunteer mentoring program between freshman and current students, pairs student with similar backgrounds and interests. cec.sc.edu/mentor
- 7 REGISTER FOR ORIENTATION** sc.edu/orientation
- 8 BIG WEDNESDAY** – The day before classes start, new students have the opportunity to meet other students in their major, visit the engineering student organizations fair and take the freshman class picture.
- 9 START CLASSES**
- 10 GET CONNECTED** – Learn about CEC clubs, research, Career Center and more! cec.sc.edu/experience





Faculty Spotlight: Ramy Harik Associate Professor, Mechanical Engineering

Professor Ramy Harik has been a faculty member in the CEC for six years, and his expertise and fundamental research interests are in advanced and smart manufacturing. He was just recognized as one of the 20 most influential professors in the field of smart manufacturing by the nonprofit manufacturing organization SME.

Mentorship and student success are key focuses for Professor Harik. He aims to inspire and set his students up for career achievement. This is evident in his association with the McNair Junior Fellows Program where undergraduate researchers pair up with CEC faculty members to solve real-world problems. The participants finish the program with a better understanding of the design process, research practices, and elements of working on an engineering team.

Dr. Harik says we “must make strong commitments to provide ample opportunities for engineering students to engage with real world technologies to make a difference as future industry innovators. This is the future of engineering education.”



**Engineering
and Computing**

cec.sc.edu

Stefanie Perrell

College of Engineering and Computing

Director of Enrollment Management

Phone: 803-777-4177 • sperrell@cec.sc.edu