



DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

STRATEGIC PLAN

2026-2030

CHARLES V. SCHAEFER, JR.
SCHOOL OF ENGINEERING
AND SCIENCE

[STEVENS.EDU/ECE](https://www.stevens.edu/ece)

ABOUT THE DEPARTMENT

VISION

To inspire and educate the next generation of leaders in Electrical and Computer Engineering, to advance the state of the art in the field, and to amplify our global impact.

MISSION

The mission of the Department of Electrical and Computer Engineering (ECE) at Stevens is to:

- Educate and empower the next generation of electrical and computer engineers to emerge as technological leaders in their field, with strong fundamental knowledge, critical thinking, problem-solving, and life-long learning skills
- Discover and advance knowledge in ECE fields through innovative and high-impact research, and by promoting outside-the-box thinking, interdisciplinary approaches and collaboration
- Make impactful contributions to society through leadership in professional organizations and through facilitating technology transfer
- Promote a collaborative educational and research environment for all students

EDUCATION AND TRAINING OF DEPARTMENT STUDENTS

GOALS

- Equip students with the skills to critically, responsibly and ethically engage with emerging technologies while deepening their understanding of professional pathways and industry expectations – advancing career readiness and AI adaptability through innovative curriculum development
- Cultivate students' communication and professional social skills to prepare for career success
- Promote undergraduate and graduate engagement with research to incorporate fresh perspectives and ideas regarding modern problems
- Develop students' ability to synthesize knowledge and deconstruct complex problems into their core principles, empowering them to devise robust solutions for abstract and multifaceted, cross-domain challenges
- Promote student success through effective program oversight, resource management, and clear academic guidance



“ Powered by the collective strength of our renowned faculty, dedicated staff, and motivated students, this Strategic Plan will advance the department to the forefront of innovation and excellence in the age of AI.

”

- Min Song, Chair

EDUCATION AND TRAINING OF DEPARTMENT STUDENTS (CONT'D)

STRATEGIES AND INITIATIVES

- ✦ Provide students with opportunities to participate in development and research events (e.g., hackathons, seminars, symposiums, and conferences) and increase their visibility to industry and academia
- ✦ Take a lead in integrating AI-related learning experiences throughout the curriculum with emphasis on embedding AI tools, applications, and ethical discussions into coursework
- ✦ Expand the use of AI-based modeling, simulation, and design platforms to enhance modern engineering practice and broaden access to experiential learning
- ✦ Enhance mentorship support for students and promote engagement through peer learning opportunities, and facilitate professional engagement opportunities for students by exposing them to professional society activities and enabling forums for close interactions with industry and alumni
- ✦ Promote and support undergraduate students' transition into graduate learning through the Accelerated Master's Program (AMP) and Accelerated Doctoral Program
- ✦ Partner with local community entities, such as businesses, nonprofits, and charitable organizations, to engage students in solving real-world problems for stakeholders

RESEARCH, SCHOLARSHIP AND ENTREPRENEURSHIP

GOALS

- Foster a vibrant, collaborative research culture that advances innovation, mentorship, and external partnerships
- Increase visibility and recognition of both faculty and student-led research initiatives and outcomes
- Support interdisciplinary and translational research to further expand the impact of departmental research efforts
- Foster transformative innovation aligned with the evolving AI-tech ecosystem

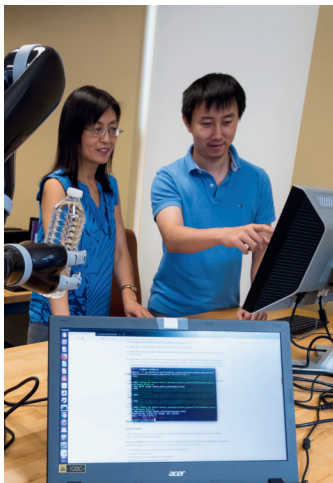
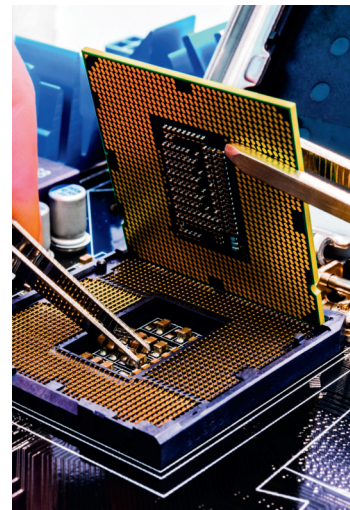
STRATEGIES AND INITIATIVES

- ✦ Advance departmental leadership in strategically defined research focus areas: AI-powered circuits, electronics, and microelectronics, intelligent communications and autonomous systems, trustworthy AI, cyber-physical systems, smart grids and resilient energy systems, and smart health systems
- ✦ Promote the development of multidisciplinary research that integrates faculty expertise across these focus areas to address complex, societally relevant challenges
- ✦ Establish and maintain communication channels amongst faculty to facilitate information and research opportunities
- ✦ Expand industry engagement and applied research opportunities through coordinated efforts among faculty, department, and school leadership
- ✦ Encourage faculty participation in external prestigious fellowship opportunities (such as Fulbright Scholarship, Jefferson Science Fellowship, etc.)
- ✦ Organize regular events that encourage the exchange of research best practices and tools among faculty and graduate students

FACULTY INVESTMENT AND DEVELOPMENT

GOALS

- Recruit, develop, and retain exceptional faculty to fulfill the department's missions of education, scholarship, and service
- Strengthen faculty support systems to sustain excellence in teaching, research, and mentorship
- Bolster support for faculty career advancement



FACULTY INVESTMENT AND DEVELOPMENT (CONT.)

STRATEGIES AND INITIATIVES

- ✦ Enhance administrative and financial support for faculty by providing dedicated assistance for research account management
- ✦ Prioritize faculty retention and success through teaching mentorship, course load flexibility, and support for career advancement
- ✦ Strengthen advising procedures by establishing regular progress check-ins and clear communication channels between students, faculty advisors, and program directors to ensure timely academic guidance and support
- ✦ Enhance faculty research productivity and funding success by providing support for proposal writing and balancing investigators' teaching load
- ✦ Recruit outstanding faculty with expertise that will complement or enhance existing departmental strengths



CULTURE AND REPUTATION BUILDING

GOALS

Shape a welcoming community through governance, communication, collaboration, and recognition to promote a culture of “excellence in all we do”

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Schaefer School of Engineering and Science

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and Computer Engineering at Stevens:

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