RESEARCH AND INNOVATION

ENGINEERING, SYSTEMS AND SCIENCES

STEVENS
INSTITUTE OF TECHNOLOGY®
1870

DISCOVER WHERE RESEARCH CAN TAKE YOU

Our world is rapidly evolving, and Stevens Institute of Technology is at the forefront of this transformation. An R2 university, we conduct leading research in areas including AI, biomedical engineering, quantum science and sustainability. When you pursue your graduate study at Stevens, you'll be immersed in an exceptional research hub that brings unprecedented opportunities.

Here, we're focused on solving tomorrow's global challenges today — it's what makes this such a dynamic and supportive community. We prioritize real-world application, and whether you work on breakthrough research projects or on developing and licensing an innovative product, you'll have the resources you need to achieve your goals.

STEVENS FOUNDATIONAL RESEARCH PILLARS

At Stevens, we focus on six foundational research pillars. Through interdisciplinary collaboration and external partnerships with government and industry, we amplify our societal impact in these areas:

- Artificial Intelligence
- Business and Finance
- Energy and Sustainability
- Health and Medicine
- Quantum Science and Engineering
- Urban and Coastal Resilience

Researchers in the Tissue Reconstruction Lab investigate tissue and organ formation and nanomedicine in cancer.

MORE ABOUT RESEARCH PILLARS

THE POWER OF MENTORSHIP

Ph.D. student Ayodeji Omoniyi is creating quantum-level models for the development of next-generation biofuels by using one of the world's most powerful supercomputers — thanks in part to his advisor, who helped him craft the research proposal that won him access to the Carbon Cluster.

Stevens is both a tight-knit community and a research powerhouse. Whether you're a master's student or a Ph.D. candidate, you'll form a close relationship with a faculty mentor who can offer personal attention — advising on project design, connecting you with valuable resources and helping you build the skills to secure funding.

"The methods and approaches I learned through the socio-technical systems program, both through research with Professor Philip Odonkor and courses such as 'Systems Modeling and Simulation' taught by Professor Paul Grogan, have strengthened my analytical and modeling skills and made me a better researcher."

DANIELLE PREZIUSO

chose to pursue her doctorate in at Stevens to explore the intersection of humanity and emerging, sustainable technologies. She is currently a senior associate renewable energy scientist at Pacific Northwest National Laboratory.

Danielle Preziuso and Professor Philip Odonkor at work in the Center for Complex Systems & Enterprises' Immersion Lab.

BRINGING TRANSFORMATIVE TECH TO THE MARKETPLACE

Research, innovation and entrepreneurship are closely tied at Stevens, and we offer you support at all stages of the pipeline to identify market opportunities for next-generation technology. One of five initial affiliates of the NY I-Corps Hub, we encourage and foster research that focuses on real-world challenges, working in cross-disciplinary teams to meet the complexity of today's problems. Recent graduates have secured patents and launched startups for advances in areas including biotechnology, cybersecurity and sensing devices — and a quantum engineering startup is now publicly traded.

Our ecosystem of innovation and entrepreneurship includes a solid infrastructure that can help you bring your transformative tech to the marketplace. Our Office of Innovation and Entrepreneurship offers support with everything from business strategy to the development and protection of intellectual property. Here, you can partner with faculty and peers to transform a promising technology into a thriving business.

FROM STEVENS LAB TO STARTUP

As a professor of physics and director of the Center for Quantum Science and Engineering, Yuping Huang is at the forefront of quantum technology research. His groundbreaking work not only advances the field but also demonstrates the power of translating academic research into real-world applications.

Huang's venture QPhoton, which develops quantum and photonic products, was recently acquired by Quantum Computing Inc. — a significant milestone celebrated at the Nasdaq closing bell ceremony.

Throughout his career, he has emphasized collaboration with graduate students, viewing them as essential partners in pursuing innovative ideas. His success in bringing quantum technology to market showcases not only the collaborative culture but also the entrepreneurial spirit fostered at Stevens. "It is my dream and life's work to bring quantum advantages to everyday technology users."

Professor Yuping Huang, quantum innovator and entrepreneur, leads Stevens' efforts in translating cutting-edge research into real-world quantum technologies.

READ MORE

NEXT-LEVEL RESEARCH FACILITIES

Stevens houses two National Centers of Excellence in addition to 15 other centers and laboratories for advanced research.

The Systems Engineering Research Center, a Department of Defense–affiliated research center led by Stevens, unites more than 20 universities to advance systems engineering through collaborative research and diverse expertise.

The Center for Research toward Advancing Financial Technologies is an NSF-funded Industry University Cooperative Research Center, the first to focus on fintech. It unites Stevens, RPI and industry partners to address urgent technological challenges in the rapidly evolving financial sector.

The Center for Quantum Science and Engineering takes a cross-disciplinary approach to developing quantum technologies that satisfy practical criteria. The center conducts research in reduced-dimensional materials, nanophotonics, cybersecurity, quantum control and ultrafast optics, in addition to other applications.

The Stevens Institute for Artificial Intelligence is an interdisciplinary collaboration of engineering, business, systems and design experts working toward solving pressing global problems in industry and the world.

The Davidson Lab is a global leader in extreme weather event forecasting, coastal resilience and marine hydrodynamics.

ADDITIONAL LABS AND RESEARCH CENTERS

Our labs and centers offer multiple opportunities to innovate through research in areas such as artificial intelligence, fintech and healthcare. These include:

- Center for the Advancement of Secure Systems and Information Assurance
- Center for Environmental Systems
- Center for Healthcare Innovation
- Center for Sustainability
- Davidson Laboratory (marine research)
- Hanlon Financial Systems Center

EXPLORE CENTERS AND LABS

STEVENS IS AT THE LEADING EDGE OF RESEARCH, CURRICULA AND EDUCATIONAL ACCESS.


GATEWAY ACADEMIC CENTER
STOP
STOP

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As our world’s challenges become increasingly complex, Stevens is at the frontier of the critical efforts to develop solutions that advance our society. Students and researchers are working side by side in leading-edge laboratories and in urgent, real-world environments.”

NARIMAN FARVARDIN
PRESIDENT, STEVENS INSTITUTE OF TECHNOLOGY

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