Stony Brook University College of Engineering & Applied Science
Department Chair and Professor, Electrical and Computer Engineering

The College of Engineering & Applied Science (CEAS) at Stony Brook University seeks a highly accomplished scholar and strategic leader to be the Chair of the Department of Electrical & Computer Engineering (ECE). Serving a renewable five-year term, the Department Chair will be appointed as a full-time tenured faculty member in ECE and, while remaining active in research, will provide sustained strategic leadership of the department.

Electrical and Computer Engineering at Stony Brook is flourishing, with approximately 560 undergraduate and 280 graduate students and 35 faculty members and annual extramural research expenditure of about $13M. The department offers two in-person and one online ABET-accredited undergraduate and five graduate programs, including the recently started Engineering Artificial Intelligence MS program. Several ECE faculty members have achieved distinctions such as SUNY Distinguished Professorship and Fellow status in professional societies such as IEEE. CEAS is similarly going through a period of reinvention, with a new emphasis on cross-disciplinary research, innovation, and impact. The Chair will join a leadership team that is, in the words of CEAS dean Andrew Singer, dedicated to "providing a world-class education in engineering and applied sciences that fosters in our students an endless curiosity and fascination, equipped with the technical knowledge to make a difference."

Stony Brook University is an AAU-member research institution with a remarkable history of social impact. The University pursues a five-part mission:

- to provide comprehensive undergraduate, graduate, and professional education of the highest quality
- to carry out research and intellectual endeavors of the highest international standards that advance knowledge and have immediate or long-range practical significance
- to provide leadership for economic growth, technology, and culture for neighboring communities and the wider geographic region
- to provide state-of-the-art innovative health care, while serving as a resource to a regional healthcare network and to the traditionally underserved
- to fulfill these objectives while celebrating diversity and positioning the University in the global community

Stony Brook consistently ranks #1 among public research universities in increasing the socio-economic mobility of its students.

The Department of Electrical and Computer Engineering

Electrical and Computer Engineering (ECE) is one of the College of Engineering's nine departments. Its faculty is active in cutting-edge, cross-disciplinary research, with funding from federal sponsors such as the National Science Foundation, Department of Defense, Department of Energy, National Institute of Health, and Brookhaven National Laboratory, NY State, as well as private industry. Many of its undergraduate courses have laboratory components where the students are exposed to experiential learning. Its diverse community of faculty and students conducts innovative research in and across multiple fields. In their labs and in centers, ECE faculty have developed highly respected research programs in a number of areas, including Power Electronics and Power System Engineering, Machine Learning and Artificial Intelligence, Photonics and Optoelectronics, Signal Processing, Cloud and Mobile Computing, Wireless and Mobile Networks, Electronics and Sensors, Circuits and VLSI and Quantum Information Science and Technology. More information on ECE research is available via this link.

The key to the department's research achievements is developing successful relationships with affiliated institutions such as Brookhaven National Laboratory, Stony Brook's School of Medicine, and numerous industrial partners.

Department Chair, Electrical & Computer Engineering

Reporting to the Dean of CEAS, the Department Chair will provide strategic direction for the growth and reputation of the department. The Chair will lead the department by engaging the ECE community in conversations about the department's mission, vision, and values in order to establish a set of meaningful shared goals and a framework for collective success. The Chair oversees administrative, budgetary, and promotional decisions within the department and has the authority to allocate resources and to launch strategic initiatives in the context of the university's new all-funds, performance-based budget model. It is expected that the new leader will engage with industry, private foundations, and alumni to advance the department's success and reputation.

CEAS dean Andrew Singer (whose faculty appointment is in ECE) is committed to providing the support that will enable ECE to substantially advance its mission. The Dean expects to partner closely with the Chair in advancing the department, including substantial engagement in fundraising activities, which will be additionally supported by University expertise and resources.

Strategic Opportunities

- Take advantage of the university's new all-funds, performance-based budget model to expand the current curricular offerings and develop new forward-looking curricula and degree programs collaborating with other units as appropriate
- Advance the culture of research productivity by leveraging the recent research growth in the department in the areas of power systems, quantum information systems, photonics and electronics, circuits and VLSI, artificial intelligence and machine learning; develop necessary support to grow research

- Expand research in the areas of national importance leveraging existing strengths in CEAS or other campus departments/centers such as computer and data science, artificial intelligence, climate sciences, quantum information systems, medicine and healthcare

Responsibilities

The Department Chair of Electrical & Computer Engineering will –

- Lead the department by developing and advancing a compelling vision for its excellence in research, education, service, and impact
- Work with CEAS, the rest of the university, and partners, execute and align the department strategic plan to that of the college and campus strategic plans
- Sustain and expand the scholarly excellence of the department and endeavor to be a leading program in the country
- Foster, advocate, and promote cutting-edge, innovative undergraduate and graduate curricula as well as multidisciplinary research collaborations through effective leadership and management; foster a positive, engaging environment for excellence
- Demonstrate a commitment to diversity, equity, inclusion and belonging, and work with faculty and staff to promote and create initiatives in these important principles throughout the department
- Serve as an engaged, institutionally focused member of the dean's leadership team, contributing to the overall development of CEAS resources, direction, and success
- Promote an engaging environment for tenure-track and non-tenure-track faculty members, grounded on effective mentoring and academic and professional development
- Leverage both existing and new connections with industry to better position the department as a leader in cutting-edge research and industry partnerships; develop and nurture the industrial advisory board
- Create and maintain a supportive environment for faculty to pursue large-scale interdisciplinary center funding with major impact
- Advance a culture of active alumni engagement with the department that celebrates its graduates as agents of its impact to the world and as the stewards of its long-term excellence
- Support the department's development efforts and establish strategic engagement and partnerships with foundations and private institutions that share the department's passion and vision for overall excellence
- Appoint undergraduate and graduate program directors, departmental administrators, and committee chairs and members as appropriate
- Oversee the equitable execution of the department's educational programs with the faculty, and schedule courses and assign instructors to these courses in consultation with program directors, the faculty, and the dean's office
- Set and communicate expectations for the research, teaching and service activities of faculty and evaluate faculty annually
- Standardize and establish transparency around course releases and other productivity-based incentives

- Plan and administer the department's budget in consultation with the dean's office
- Design faculty recruitment efforts with department and center/institute colleagues and contribute to their success

Qualifications and Appointment Terms

Qualified candidates will have the credentials necessary for appointment as a tenured full professor at Stony Brook University. These credentials entail a dossier that records a distinguished record of scholarship and teaching, a passionate commitment to research, discovery, and translation, and leadership in their field(s) and a national reputation for research and education. Qualified candidates will also have demonstrated an interest in and success at academic administration. And they will have a record of impactful efforts to enhance diversity, equity, and inclusion among faculty, staff, undergraduate, and graduate students.

The successful candidate will have demonstrated leadership abilities, administrative aptitude, and experience in fostering collaboration and building consensus amongst colleagues. Agility, relationship skills, the readiness to take calculated risks on the basis of analysis, consultation, and ambition for the department are attributes a Chair will draw on in leading Stony Brook Electrical & Computer Engineering to new levels of distinction.

The Chair will be a proven, entrepreneurial leader who can inspire faculty, staff, and students in a shared governance environment. They will have the ability to collaboratively develop a compelling vision to establish ECE as a hub for electrical or computer engineering research and education and as a site of innovation, teaching, and translation. They will have strong skills for mentoring junior faculty and will promote the interests of the entire department. Fundraising experience is preferred.

Qualifications

Ph.D. or equivalent in Electrical & Computer Engineering or closely related field. Ten (10) years of teaching and research experience. A scholarly record deserving appointment as tenured full professor at Stony Brook University. A proven track record of scholarship and the ability to support a vibrant research program along with an outstanding record of professional achievement. Excellent leadership and management skills suitable to lead a world-class research and education program. Demonstrated academic leadership experience and a commitment to enhancing diversity, equity and inclusion among faculty, undergraduate and graduate students, and staff. A record of successful administrative experience managing personnel, budgets, and department or center/institute or school/college academic operations is preferred. Senior researchers from industry or government with a proven track record of scholarship and professional leadership but limited academic experience are also encouraged to apply.

Appointment terms

The Chair will serve a renewable five-year term subject to an appropriately rigorous periodic review. Elements of the appointment such as underlying faculty salary, teaching load, outside engagements, and summer compensation are negotiable. The Chair will have an underlying faculty position as a tenured full professor. The expected start date is Fall 2025.

<u>Stony Brook University</u>

Stony Brook University is one of two flagships of the State University of New York (SUNY) system. It is a leading public university, an internationally recognized research and medical institution, and a member of the prestigious Association of American Universities (AAU). It is known as one of the nation's premier centers for academic excellence and is a leader in generating social mobility with a proud history of undergraduate student success. Stony Brook is located approximately 60 miles east of Manhattan on Long Island's beautiful North Shore.

Situated on 1,454 wooded acres, the campus encompasses 12 schools and colleges; a Research and Development Park; a host of centers and institutes that range in focus from education, arts, and culture to STEM, business, and medicine; and world-class athletics facilities, including a 12,300-seat stadium and a 4,000-seat arena. The University also includes Stony Brook Medicine, Long Island's premier academic health system encompassing five health sciences schools, four hospitals, 200 community-based healthcare settings, and a growing number of clinical affiliations. Stony Brook University has a teaching and research campus in Southampton, NY, which is home to graduate arts programs, health sciences professional programs, and the Marine Sciences Center; SUNY Korea is part of the Incheon Global Campus in South Korea. Since 1998, Stony Brook, in partnership with Battelle, has managed the [Brookhaven National Laboratory](), one of 17 Department of Energy National Labs, with many faculty holding joint appointments.

The University enrolled 25,865 students in the fall of 2023 (17,549 undergraduate students and 8,316 graduate students) and supports almost 300 postdoctoral scholars. It offers more than 200 majors, minors, and combined degree programs. Students come to Stony Brook from nearly all 50 U.S. States and over 100 countries. About one-third of Stony Brook's undergraduates are first-generation students. Stony Brook is a diverse community, and the 2023 entering-class profile was 49% male and 51% female. Its racially and ethnically diverse student body is 27.9% Asian, 5.8% African American, 13.3% Hispanic/Latinx, 13.3% nonresident alien, 30.4% Caucasian, 2.7% two or more races, and 6.5% not indicated/unknown. International students constitute 13% of Stony Brook's total enrollment. The University enjoys a strong international presence, maintaining affiliation agreements with about 100 universities in Africa, Asia, Europe, Latin America, and Oceania.

A core value of Stony Brook is its commitment to diversity, equity, inclusion, and accessibility. The University has recently been recognized for its leading role in providing opportunities for social mobility and economic growth for its students. These outcomes are singled out in a recent study by the Stanford Institute for Economic Policy Research, which concluded that Stony Brook offers a proven path toward upward advancement for students from low-income households, far ahead of many of its better-funded peers, both public and private. The University outperforms the national graduation rates of four-year institutions regardless of race or ethnicity. Stony Brook graduates have less debt than the national average of college graduates, and 95 percent of recent graduates are

either employed or continuing their education. In 2024, U.S. News and World Report ranked Stony Brook as a top-30 public institution and the #1 public university in New York State.

As Long Island's largest single-site employer, the University has over 15,000 full and part-time employees, including more than 2,700 faculty. Stony Brook's expected 2023-24 operating budget is nearly $4 billion, with monies generated from a variety of sources including academic and research funds, hospital revenue, tuition, state support, and philanthropy. Thanks in large measure to the transformative 2023 gift of $500M in unrestricted endowment funds by the Simons Foundation – the largest-ever such gift to any US university – Stony Brook's endowment has grown to approximately $750 million and will grow towards $1 billion when matching gifts triggered by the Simons donation arrive. The growing endowment will propel the University's efforts in education, research, and service. More detailed information about the University's budget and fiscal plans are available in its Achieving Financial Sustainability Plan.

Research at Stony Brook

Stony Brook faculty are known for their outstanding research, scholarship, and creative activity. Faculty members are recipients of many national and international awards for their research, creative activity, and teaching. Notable accomplishments and recognitions earned by Stony Brook faculty and associated faculty over the years include:

- 27 members of the National Academy of Science
- Six members of the National Academy of Engineering
- Six members of the National Academy of Medicine
- 14 members of the National Academy of Inventors
- 29 members of the American Academy of Arts and Sciences
- Six Fellows of the Royal Society
- The 2003 Nobel Prize in Medicine for developing the first MRI images
- 1957 Nobel Laureate in Physics and Stony Brook University faculty member C.N. Yang
- Inaugural President's Distinguished Endowed Chair in Physics, 2017 Nobel Laureate Barry Barish

With more than 2,500 faculty, staff, graduate students, and postdoctoral trainees engaged in research and over 2000 sponsored awards, Stony Brook's Research and Development (R&D) expenditures topped $244 million, including $201 million of Federal sponsored R&D expenditures, as reported in the University's 2023-2024 NSF HERD data. Stony Brook's annual research expenditures have grown by 50% since 2014.

Stony Brook is home to numerous research centers and institutes, including the Center for Frontiers in Nuclear Science, the C.N. Yang Institute for Theoretical Physics, the Turkana Basin Institute, the Cancer Center, the Centers for Molecular Medicine, the Laufer Center, the Institute for Chemical Biology and Drug Discovery, the Institute for Discovery and Innovation in Medical Engineering, the Institute for Advanced Computational Science, and the Long Island Network for Clinical and Translational Science. In addition, there are numerous large federally funded centers, including two DOE-funded Energy Frontiers Research Centers (EFRC), the CDC/NIOSH- funded World Trade

Center Wellness Program, and the lead institution for the NSF-funded large facilities grant – The US Collaboration for the ATLAS Experiment at the Large Hadron Collider. Among Stony Brook faculty are approximately 50 joint appointments with Brookhaven National Laboratory, where many faculty and students are involved in research activities and access unique user facilities.

Stony Brook's role as co-manager of Brookhaven National Laboratory enables faculty and grad students to take advantage of BNL's significant research infrastructure and scale. Relationships with Cold Spring Harbor Laboratory enable University researchers to collaborate with CSHL's research staff, for instance in the Genetics Graduate Program and the Neuro AI initiative, and to access CSHL's unique user facilities.

The Stony Brook Research and Development Park, located on 246 acres adjacent to the main campus, has been designed as a community of innovators who build solutions to society's most pressing problems, leveraging Stony Brook's research strengths in three convergent areas: energy, information technology, and biomedical technology. The R&D Park is home to two NY State-funded centers – Center of Excellence in Wireless and Information Technology (CEWIT) and Advanced Energy Research and Technology Center (AERTC). State-of-the-art facilities provide resources to researchers, entrepreneurs, and users from academic, corporate, and government sectors. The R&D Park and other research facilities across the campus continue to attract and retain preeminent faculty and outstanding students, and to produce cutting-edge research and creative activities that will secure Stony Brook's place among the very best research universities.

Between 2021-2022, Stony Brook launched a "Tiger Team" initiative to identify priority areas to focus in developing larger-scale research programs as well as services and infrastructure necessary to develop the research enterprise transformatively. This initiative, described here, brought new clarity to the investments Stony Brook can make in research in order to fully leverage its impressive disciplinary breadth.

Stony Brook's Presidential Innovation and Excellence (PIE) Fund launched in 2021 with an initial $75 million investment. The fund exists to underwrite potentially transformative initiatives whether in or across disciplines or in infrastructure and core facilities. Since its inception, PIE has contributed to the development of Stony Brook's winning proposal to develop Governors Island as a hub for climate research, as well as the Center for Distributed Quantum Processing, and the Center for Healthy Aging. Stony Brook has launched the AI Innovation Institute (AI3), expanding the initial efforts established in 2018. AI3 will draw leverage from the NY State and SUNY level initiatives like Empire AI, SUNY STRIVE for AI, and the SUNY IBM Alliance.

Additionally, a $100 million appropriation from New York State will enable Stony Brook to build state-of-the-art research facilities. Leveraged by such funding, the University continues to develop its campus, including the new Institute for Engineering-Driven Medicine and the new Multidisciplinary Engineering Building. As noted, the PIE program will provide the first five years of AI3 funding.

Please see the Research and Metrics website for additional data on Stony Brook research. And to learn more about the community and the benefits of working at Stony Brook University, explore here.

To Apply

Stony Brook University is committed to creating and maintaining a workplace and educational environment that is safe, accessible, and free of all forms of discrimination, sexual misconduct or research misconduct, among other infractions. In support of this commitment, certain candidates for employment will be required to disclose such employment-related misconduct findings and pending investigations or proceedings, and final candidates for certain faculty and staff positions will authorize their current and previous employer(s) from the last seven (7) years to disclose such information to the University. Employment is contingent on your full and complete disclosure on these matters. In the event that you fail to disclose any such matter or in the event of an unsatisfactory outcome of the disclosure and review process, an offer of employment may be revoked at SBU's sole discretion. If SBU becomes aware of a failure to disclose or misrepresentation of any such matter after your employment commences, you may be subject to discipline, up to and including termination.

The selected candidate must successfully clear a background investigation.

In accordance with the Title II Crime Awareness and Security Act, a copy of Stony Brook's crime statistics is available upon request by calling (631) 632- 6350. It can also be viewed online at the University Police website at http://www.stonybrook.edu/police.

Stony Brook University has retained Opus Partners (opuspartners.net) to support this recruitment. Craig Smith, Senior Partner, and Carli Swartz, Senior Associate are leading the search. Inquiries, applications, and nominations should be sent to carli.swartz@opuspartners.net. The search process will unfold with the greatest possible attention to candidate confidentiality. Required application materials include a CV and cover letter (finalists in the search process will provide at least three (3) contact references who can speak to their leadership and administrative abilities their management record, and their integrity. Stony Brook University values diversity, equity, and inclusion and will seek a leader who is committed to promoting these values. Candidates can read more about Stony Brook's efforts here. We encourage candidates to address in their cover letters how they have promoted these values in their career and/or how they would plan to do so in this role.

This national search will continue until the best possible appointment can be made. For full consideration, candidates should complete their dossiers by December 1, 2024. Review of applications will begin shortly thereafter.