

Research Flourishing as Stevens is Driven to Make Life Better for People and to Improve Society The Stevens Indicator, Winter 2019

When Stevens adopted its ten-year Strategic Plan in 2012, a bold vision was articulated: "... to become a premier, student-centric, technological research university." This carefully-crafted combination of words emphasized the integral role of research to a university that, over many decades, built its reputation by providing a rigorous and broad-based technical education that has launched thousands of graduates into successful careers. In 2017, through the midpoint update of our plan, Stevens refocused its lens to identify six high-impact and multi-disciplinary "foundational pillars" that will define our research agenda in the years to come:

- Artificial intelligence, machine learning and cybersecurity
- Biomedical engineering, healthcare and the life sciences
- Complex systems and networks
- Data science and information systems
- Financial systems and technologies
- Resilience and sustainability

Stevens' growing impact in these areas is significant and is increasingly being recognized by national research funding agencies. In the past fiscal year, Stevens researchers set an unprecedented record in sponsored research awards of \$45.3 million. This represents a 49 percent increase in annual funding since 2011.

As these data illustrate, research has become central to the mission of Stevens. Our faculty are making new discoveries in areas that directly benefit individuals and families, from medical diagnoses and treatments of cancer, autism, Alzheimer's, Parkinson's, heart disease and other illnesses; to advances that have large-scale, system-wide impacts — including defense and homeland security, cybersecurity and the safety and security of our financial systems, maritime systems and infrastructure, to name just a few.

I am particularly proud of the newly-established Stevens Institute for Artificial Intelligence (SIAI), an interdisciplinary education and research institute that brings more than 50 faculty members from all three schools and the College of Arts and Letters together to solve pressing problems in healthcare, business operations, finance, education and many other fields. Through this vehicle, our researchers are doing fundamental and applied research using AI and machine learning that will have truly transformational impacts on individuals and on society.

As the size and prestige of our faculty body continues to grow, and as new academic and research facilities come online — including many new and renovated laboratories across the campus and the anticipated opening of the Gianforte Family Academic Center in less than a year

— the contributions of our faculty and students and of Stevens' research portfolio will become even more widely known.

I hope you enjoy learning more about some of the truly inspiring research taking place at your alma mater. We invite you to come back to campus to visit and see it first-hand.

Per aspera ad astra,

Nariman Farvardin

President, Stevens Institute of Technology