Innovation for an Interconnected World

The School of Engineering at Brown
Recruiting Renowned Faculty

Our curriculum provides a deep foundation in fundamental engineering areas; our future growth will focus on strategic areas where technological innovation and entrepreneurship can have a broad and bold impact on society.

**Biology and Health Care:** Challenged by infectious diseases, an aging population, public health improvements, and more, biomedical engineering is fabricating useful new devices and creating new technologies to change the way diseases are detected and health care is delivered. Assistant Professor Domenico Pacifi has developed a biochip that may eliminate the need for diabetics to draw blood.

**Energy and the Environment:** When we confront the major challenges needed to create a sustainable society, energy and environmental technologies are at the heart of the solution. Brown is creating the clean technologies that will power the 21st century. Professor Tayhas Palmore has created a new prototype battery that uses plastic, not metal, to conduct electrical current.

**Information Technology for Society:** Information technology has a profound impact on every aspect of the modern world. Computing and communications enable collaborative opportunities between a wide range of disciplines. Associate Professor Gabriel Taubin has designed software that allows archaeologists to reconstruct columns, buildings and statues from photos and video of fragments.

**Entrepreneurship:** One of the greatest global challenges is the creation of high-paying jobs in high-growth companies and industries. We are establishing a leading-edge high-technology entrepreneurial culture on the Brown campus. At the Rhode Island Business Plan Competition, our students and their start-up companies have won top honors each of the last four years.

**SUPPORTING THE GOAL**

Endowed professorships 12 @ $4M each

“This project is ambitious, but Brown has implemented equally ambitious plans in the last several years. Aiming for excellence invigorates and inspires us all.”

LAWRENCE (LARRY) LARSON
INAUGURAL DEAN,
SCHOOL OF ENGINEERING

TAYHAS PALMORE,
PROFESSOR OF ENGINEERING
Entrepreneurial thinking is a critical element of the modern university. An effective entrepreneurship program fosters opportunity-seeking behavior and a problem-solving mindset, provides students with the tools they need to take responsibility for their own careers, develops successful entrepreneurs who give back to the community, and powers the economy—both locally and globally.

In order to accelerate the pace of Brown entrepreneurial activities and impact, we aim to:

• Create a unique and internationally renowned program in entrepreneurship that blends technology and entrepreneurship in both developing and developed world contexts

• Expand the entrepreneurship course offerings to the university as a whole and infuse the entrepreneurial mindset into the engineering curriculum, while at the same time developing our reputation as a leading school in technology entrepreneurship

• Involve greater numbers of undergraduates, graduate students and faculty in the creation of new ventures that have measurable and significant impact

**SUPPORTING THE GOAL**

Endowed professorships in entrepreneurship  
2 @ $4M each

Fully equipped space for student projects and mentoring, incubators, teaching and entrepreneurial community events  
$5M–$20M

Endowed and current-use funds to support conferences, curriculum development, and the creation of new ventures  
$3M–$15M
Transforming Undergraduate Engineering Education

The undergraduate engineering experience at Brown is both rigorous and interdisciplinary. A modern engineering curriculum provides ample opportunity for design thinking at all levels of instruction and engages with the entire University community.

• **Create a Design-Oriented Curriculum.** Improving the hands-on and design aspects of the program and giving students a wider variety of design experiences through creation of a space for students to design, prototype and deploy solutions to real-world engineering challenges will significantly enhance the experience.

• **Develop New Modes of Engineering Education.** Experimenting with new modes of teaching—from small groups of students in studios to the incorporation of web-based learning—will enhance and augment faculty-based instruction.

• **Engage the Brown Community.** Expanding opportunities to teach courses to non-engineering students will help us to develop further collaborations. The *Engineering and the Arts and Humanities Initiative* will create unprecedented ties between diverse intellectual communities on the campus.

We seek to ensure that Brown Engineering remains one of the top engineering schools in the world, blending a personal educational experience with our faculty’s world-class research.

**SUPPORTING THE GOAL**

<table>
<thead>
<tr>
<th>Description</th>
<th>Funding Range</th>
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<tbody>
<tr>
<td>Engineering Lab for a Design-Oriented Curriculum</td>
<td>$5M–$15M</td>
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<tr>
<td>Engineering and the Arts and Humanities Initiative</td>
<td>$3M–$6M</td>
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<tr>
<td>Dean’s Discretionary Fund for Engineering Excellence</td>
<td>$1M</td>
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**PRADEEP R. GUDURU, JAMES R. RICE ASSOCIATE PROFESSOR OF ENGINEERING (RIGHT)**
For more than 160 years, Brown University’s engineering program has sustained an exciting and unique environment for learning, teaching, and research. What began with a single course in 1847 has grown into a distinguished School of Engineering characterized by global impact, innovation, multi-disciplinary pursuits, and outstanding faculty and students.

Now, a unique opportunity exists to turn the School of Engineering into a force for global technological and entrepreneurial innovation by:

- Recruiting renowned faculty in key areas of explosive technological growth and profound societal impact
- Establishing a Center for Entrepreneurial Innovation
- Transforming undergraduate engineering education

“Brown’s School of Engineering is poised to become one of the top programs in the nation. With its signature blend of teaching excellence, inter disciplinary collaboration, research ingenuity, and entrepreneur ship training, it will benefit substantially from an influx of new scientists and leaders. These additions will contribute to the momentum already generated by Brown’s outstanding faculty and students.”

PRESIDENT CHRISTINA PAXSON

“Being a faculty member at Brown’s School of Engineering has been one of the most valuable experiences in my life, allowing me to conduct first-rate research as well as to teach the most amazing students.”

HUAIJIAN GAO, WALTER H. ANNENBERG UNIVERSITY PROFESSOR OF ENGINEERING
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