

The background of the entire page is a photograph of a University of Illinois campus. In the foreground, there is a dark, paved walkway made of rectangular stones. Beyond the walkway is a large, green lawn. In the middle ground, a person is walking across the lawn. In the background, there are several large, multi-story brick buildings with many windows, typical of a university campus. The sky is blue with some white clouds. The overall lighting is warm, suggesting a sunset or sunrise.

# CORPORATE ENGAGEMENT OPPORTUNITIES

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## GRAINGER ENGINEERING

### Corporate Relations

The Grainger College of Engineering  
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[grainger.illinois.edu/corporate](http://grainger.illinois.edu/corporate)



# **GRAINGER ENGINEERING**

The University of Illinois at Urbana-Champaign's Grainger College of Engineering is one of the world's top ranked engineering institutions. Our students, faculty, and alumni set the standard for excellence. We drive the economy, reimagine engineering education, and bring revolutionary ideas to the world.

We solve the world's greatest challenges, transforming today's ideas into tomorrow's reality. We explore the next generation of drone technology, design less invasive ways to fight cancer, lead the innovation of virtual reality, and uncover new forms of matter. We do the impossible every day.

## **Who We Are**

The Grainger College of Engineering values students, faculty, and alumni above all else. It is this passion and drive for excellence that makes us one of the top 10 engineering schools in the nation.

We are constantly growing, always evolving. We ask the big questions, solve the unsolvable, innovate new technologies only dreamed of until now, and redefine what is possible when bright minds work together.

## **What We Do**

As part of a land-grant university and Tier 1 research institution, The Grainger College of Engineering is committed to providing an outstanding education and facilitating research that will change the world. From the transistor to the first internet operating system, research from our college has been fundamental to modern advances, leading to the technology we use today. Our faculty and researchers continue this trend, always at the forefront of innovation. Educating the engineers of tomorrow is a responsibility we take very seriously. Whether Grainger Engineering students enter academia or industry, our mission ensures they are prepared and equipped to thrive in their field.

## Strategic Plan

Continuing a tradition of excellence while pursuing solutions to new challenges facing our world, The Grainger College of Engineering is directing and investing resources to boldly pursue the following strategic directions:

- Grow basic and translational research impact
- Deliver high-impact, personalized educational experiences at scale
- Establish ubiquitous diversity, equity, access, and inclusion
- Acquire, steward, and align resources with priorities
- Communicate our achievements and capabilities
- Enable our people to achieve their full potential.

Visit: [grainger.illinois.edu/about/strategic-plan](http://grainger.illinois.edu/about/strategic-plan).

## ENGAGEMENT OPPORTUNITIES

Grainger Engineering offers many partnership opportunities for companies to engage with and support the missions of faculty and students. These collaborative opportunities allow industry and research to generate technology and breakthroughs. Partner with us in leading-edge projects and programs, driving exceptional research and spurring innovation. Engage with our faculty to advance your industry and work with our students to increase your pool of talented future employees. Together we will build strategic partnerships including sponsored research, recruitment, continued education, and philanthropy.

### Philanthropy

Corporate philanthropy supports programs for budding engineers, underrepresented groups, and much more at The Grainger College of Engineering. Join us in advancing the knowledge and expanding the possibilities of a thriving world-class engineering institution.

### Programmatic Support

Your company may support programs for students and faculty in a variety of contexts. This can be anything from assisting youth outreach initiatives to supplying researchers with necessary equipment.

### Outreach

The Grainger College of Engineering is committed to extending the benefits of engineering and STEM education to everyone.



**Illinois Academic Redshirt in Science and Engineering (ARISE)** - Students in the ARISE program are highly talented undergraduates who lacked access to the same level of academics as their peers. This five-year program provides a community for these students and facilitates continued collegiate success.

**The IDEA Institute** - The IDEA Institute supports scholarship, innovation, collaboration, and leadership in the areas of inclusion, diversity, equity, and access (IDEA) within The Grainger College of Engineering. The Institute organizes the college's efforts and raises visibility in these areas.

## Scholarships and Fellowships

Help the best and brightest of Grainger Engineering through undergraduate scholarships and graduate fellowships. With this support, students can reach their educational goals.

## Faculty Support

Grainger Engineering faculty are solving the world's greatest challenges and educating the next generation. Proper investment means they can truly enact global changes.

**Unrestricted Research Gifts** – These gifts support research and numerous projects throughout Grainger Engineering.

**Equipment Loans or Donations** – Loan or donate equipment to faculty members, giving them the tools required to conduct their research.

## Recruitment

Recruit Grainger Engineering students for internships and full-time jobs after graduation and access the most sought-after students in the nation.

## Engineering Career Services Career Fair

The spring and fall career fairs are the best way to get face-to-face contact with Grainger Engineering students. The fall career fair is one of the largest in the country, with more than 400 companies and over 6,500 students attending.

## Internships and Co-Ops

Working with current engineering students, your company will experience firsthand the outcomes of a Grainger Engineering education. Internships and Co-Ops place your company top of mind for students when looking for post-graduation employment.

## City Scholars

Through this innovative program, current students spend a semester in Chicago, working part time at internships while continuing their studies.

City Scholars builds a pipeline between Grainger Engineering students and the City of Chicago.

## Industry Affiliates Program

Participating in an affiliation program gets you in the door with students and researchers in key departments. Affiliates participate in strategic programs, gaining further insight into academic programs.

## Corporate Events

Holding an event on campus facilitates one-on-one conversations with students and researchers and showcases the benefits of collaborating with your company.

**Corporate Day** - Companies set up in a campus building lobby, creating an accessible and informal meeting place and an excellent means of networking with students and researchers.

**Corporate Hack-A-Thon** – Build a software or hardware Hack-a-Thon around a relevant problem and watch our brightest minds solve the issue and showcase their skills.

**Tech Talks** - Host a technical talk on campus and connect with students while highlighting your organization's current developments.

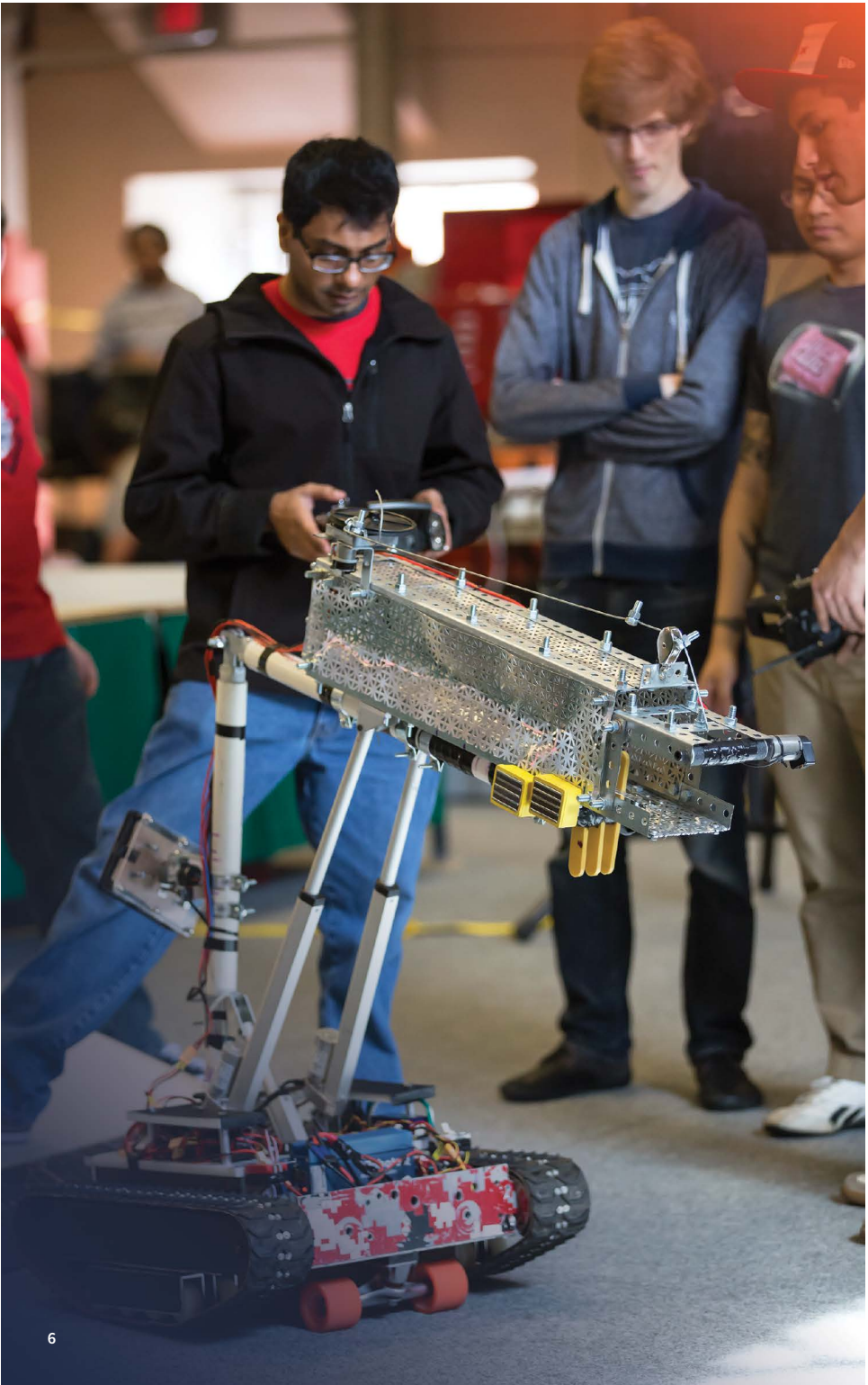
## Guest Speaker and Lecture Opportunities

Prominent industry leaders and experts share ideas and create relevant conversations during distinguished lecture series.

## Student Club Events

Student organizations are fundamental to the Grainger Engineering experience. Sponsoring these clubs and their events help students reach their full potential.

**HackIllinois** - One of the best collegiate hackathons in the nation, HackIllinois is a 36-hour, caffeine-fueled exercise in creativity, cooperation, and innovation. Teams work on projects, mentored by dozens of industry leaders from the event's nearly 40 sponsor companies.



### **Coordinated Science Laboratory (CSL) Graduate Student Conference -**

This conference showcases Grainger Engineering's cutting edge and interdisciplinary research and features a graduate student job fair.

**Pulse** – Designed by and for Electrical and Computer Engineering students, the Pulse conference celebrates innovation in technology and connects students with groundbreaking corporate projects.

**Reflections/Projections** - This student-organized tech conference draws students, speakers, and companies from around the world to engage in conversation, an AI hackathon, a startup fair, and a job fair.

**Engineering Open House (EOH)** - EOH draws more than 20,000 attendees every year with interactive displays, renown speakers, and a world-famous robotics design competition. Participating companies and corporations highlight their innovations and technologies at one of the best engineering colleges in the nation.

## **Research**

Research and innovation are the heart of The Grainger College of Engineering. Revolutionize your industry by partnering with Grainger Engineering faculty, researchers, and students. Sponsor innovative research that will advance your organization and keep you at the forefront of the future.

### **Capstones and Senior Design Projects**

These student projects create new design perspectives and solutions tailored to specific industry issues. Sponsoring a senior design or capstone project provides problem-solving insights and access to possible new hires. Projects are available in bioengineering, computer science, electrical and computer engineering, industrial and enterprise systems, material sciences and engineering, and mechanical science and engineering.

### **Undergraduate Research**

Sponsored undergraduate research, available in some departments, exposes students to current disciplinary research, relevant discussions, and experiences outside of their regular coursework.

**Illinois Scholars Undergraduate Research (ISUR) Program** - ISUR offers undergraduates two semesters of learning-by-apprenticeship, preparing them for research in both academia and industry.



# #5

Overall ranking  
among undergraduate  
programs in the U.S.

# #11

Overall ranking  
among graduate  
programs in the U.S

# 8

Multidisciplinary  
research centers

# 12

Departments

# 28

Top 5 ranked degree  
and specialty  
programs

# 45

Laboratories,  
research centers,  
and institutes

# 70+

Engineering-based  
student organizations

# 488

Total tenure  
track faculty



# 46%

Female  
undergraduates

# 54%

Undergraduates  
participate in  
research

# 2,047

Record-breaking  
number of first-year  
students enrolled

# 56%

Undergraduates  
from Illinois

# \$290M

In research expenditures

# 2,400+

Research projects under way

### **Mentoring Undergraduates in Science and Engineering (MUSE) -**

MUSE creates undergraduate and graduate student mentor pairs based on similar research interests.

**Promoting Undergraduate Research in Engineering (PURE)** - PURE pairs first and second year undergraduates with graduate students for a semester-long engineering research project, providing invaluable experience early in their career.

### **Sponsored Research**

Corporate support for academic research comes in many forms, including financial sponsorship. Companies may share proprietary materials and technical expertise to advance joint research goals.

**Our Process** - Working from our database of expertise, The Office of Research will match the best faculty member to your organization's research problem. The corporate relations team considers the details of your challenge, then narrows possible faculty candidates to those aligned to your interest.

### **Technical Testing**

A Technical Testing Agreement (TTA) enables companies to engage with the university, contracting out basic lab or field tests to technicians, without faculty involvement.

### **Equipment and Facility Use**

A Facility Use Agreement (FUA) allows companies to access lab and testing facilities for research purposes.

### **Research Centers**

Grainger Engineering is home to numerous research centers where faculty and researchers work together on a shared purpose, idea, or goal. These centers are often interdisciplinary and spur groundbreaking innovation.

**Power Optimization for Electro-Thermal Systems (POETS)** - This collaboration hopes to increase power density available in constrained mobile environments. POETS seeks an interdisciplinary approach to co-design and co-operate power-dense electro-thermal systems.



**Socio-Technical Risk Assessment (SoTeRiA)** - Based in the Nuclear, Plasma, and Radiological Engineering Department, the SoTeRiA lab provides scientific and innovative research solutions to complex real-world problems of safety, reliability, profitability, and security. It is innovating Probabilistic Risk Assessment by explicitly incorporating the science of underlying accident causation into risk scenarios.

**Center for Advanced Electronics Through Machine Learning (CAEML) -**

CAEML's vision is to enable fast, accurate design and verification of microelectronic circuits and systems by creating machine learning algorithms to derive models for electronic design automation. The center aims to speed up the design and verification of microelectronic circuits and systems, reducing development cost and time-to-market for manufacturers of microelectronic products, especially integrated circuits.

**Center for Autonomy** – The Center for Autonomy enables high-impact research and develops new educational programs for students and professionals. The center plays an important role in designing innovative systems that can function autonomously, or without human intervention, in a safe and reliable way.

**Center for Digital Agriculture** - The Center for Digital Agriculture helps researchers, educators, farmers, and industries keep pace with the ways technology is transforming how we feed and support a growing global population. The center researches everything from the nature of the data itself—its collection, storage, transmission, and analysis—to how the data might be used to optimize areas from precision agriculture to food manufacturing to water use and treatment.

**REMADE** - In partnership with industry, academia and national labs, the REMADE Institute enables early stage applied research and development of technologies that could dramatically reduce the embodied energy and carbon emissions associated with industrial-scale materials production and processing.

**Information Trust Institute (ITI)** - The Information Trust Institute designs complex systems that deliver a predictable level of reliability, security, performance and availability, even when there are unknowns. Research is currently focused in the areas of critical infrastructures, energy systems, systems and networking, and testbed science.

## Visiting Scientists

Engineers from all fields are invited to come for a sabbatical at The Grainger College of Engineering in partnership with a host faculty of their choosing.

## Interdisciplinary Research Centers

These centers serve as hubs for research and collaboration on campus, where faculty and researchers from across disciplines meet to solve the world's greatest challenges.

**Coordinated Science Laboratory (CSL)** - Backed by more than 65 years of landmark innovations, CSL supports interdisciplinary research including the Internet of Things, cybersecurity, intelligent robotics, and health IT.

**Holonyak Micro & Nanotechnology Laboratory (MNTL)** - MNTL is one of the country's largest and most sophisticated university facilities for conducting photonics, microelectronics, biotechnology, and nanotechnology research. The facility includes 15 cleanrooms, 46 general purpose labs, and a 2,500 square foot biosafety level-2 bionanotechnology complex.

**The Materials Research Laboratory (MRL)** - MRL provides a highly-collaborative and progressive materials research environment. At the forefront of materials discovery, synthesis, fabrication, and understanding, MRL empowers researchers to make highly functional materials and devices and to discover properties never before observed.

**The Illinois Applied Research Institute (ARI)** - ARI performs translational research with a sharp focus on the development of technologies that are validated before they leave the laboratory. This research is done in partnership with faculty, government, and industry on open, proprietary, and classified projects.

**Joint Programs with Federal Funders or Other Corporate Partners** - Federal agencies offer several funding opportunities for faculty willing to partner with companies. These grants are often written in partnership with a company willing to supply small financial support or share their expertise.

View: <https://www.nsf.gov/about/partners/fedagencies.jsp>



## **Innovation and Entrepreneurship**

From YouTube to PayPal, some of the world's greatest entrepreneurs began their journey in Grainger Engineering. Every Grainger engineer, from undergraduate to faculty member, shares and develops this innovative spirit.

## **Licensable Intellectual Property**

The Office of Technology Management's (OTM) portfolio of licensable innovations represents the breadth and depth of the university's research enterprise. OTM's Ready-to-Sign Licensing Program facilitates rapid licensing and the transfer of University intellectual property.

View: <https://otm.illinois.edu/technologies>

## **Proof of Concept Funding to Advance Research to Commercial Applications**

Proof-of-Concept programs fund development projects that demonstrate an innovation's market viability to potential investors and partners. Projects consist of a defined set of milestones that, when completed, help overcome a specific hurdle to an innovation's transfer outside of the university.

View: <https://otm.illinois.edu/POC>

## **Research Park Presence**

The Research Park at the University Illinois Urbana-Champaign includes more than 120 companies ranging from corporate research to tech operations to startups. These companies employ more than 2,100 people in high-tech careers and provide experiential learning for more than 800 student interns.

## **Partnering with Faculty or Student Startups**

University of Illinois Urbana-Champaign IP is the basis for more than 60 startups. Through partnerships with startups, companies access teams of faculty or students seeking innovation outside of academia.

## **Consulting**

Companies may hire faculty as consultants outside of their academic responsibilities. Constraints to consider include no access to university resources and varied consulting fee rates per faculty member.

## **Short Courses and Custom Programs**

Grainger Engineering's Short Courses for Professionals focus on applications of advanced technical topics, developed and delivered by leading experts across multiple areas of unique expertise. These small, in-person programs optimize engagement, discussion, and hands-on learning.

## **Grainger Engineering by the Numbers**

### **Undergraduate Numbers**

Undergraduate college rank: #5  
Undergraduate population: 10,613  
Undergraduate international percentage: 22%  
Undergraduate female percentage: 25%  
Undergraduate underrepresented minority percentage: 10%

### **Graduate Numbers**

Graduate rank: #11  
Graduate population: 6,048  
Graduate international percentage: 48%  
Graduate female percentage: 22%  
Graduate underrepresented minority percentage: 5%

### **Total Tenure Track Faculty - 436**

## **Grainger Engineering Departments by the Numbers**

### **Aerospace Engineering**

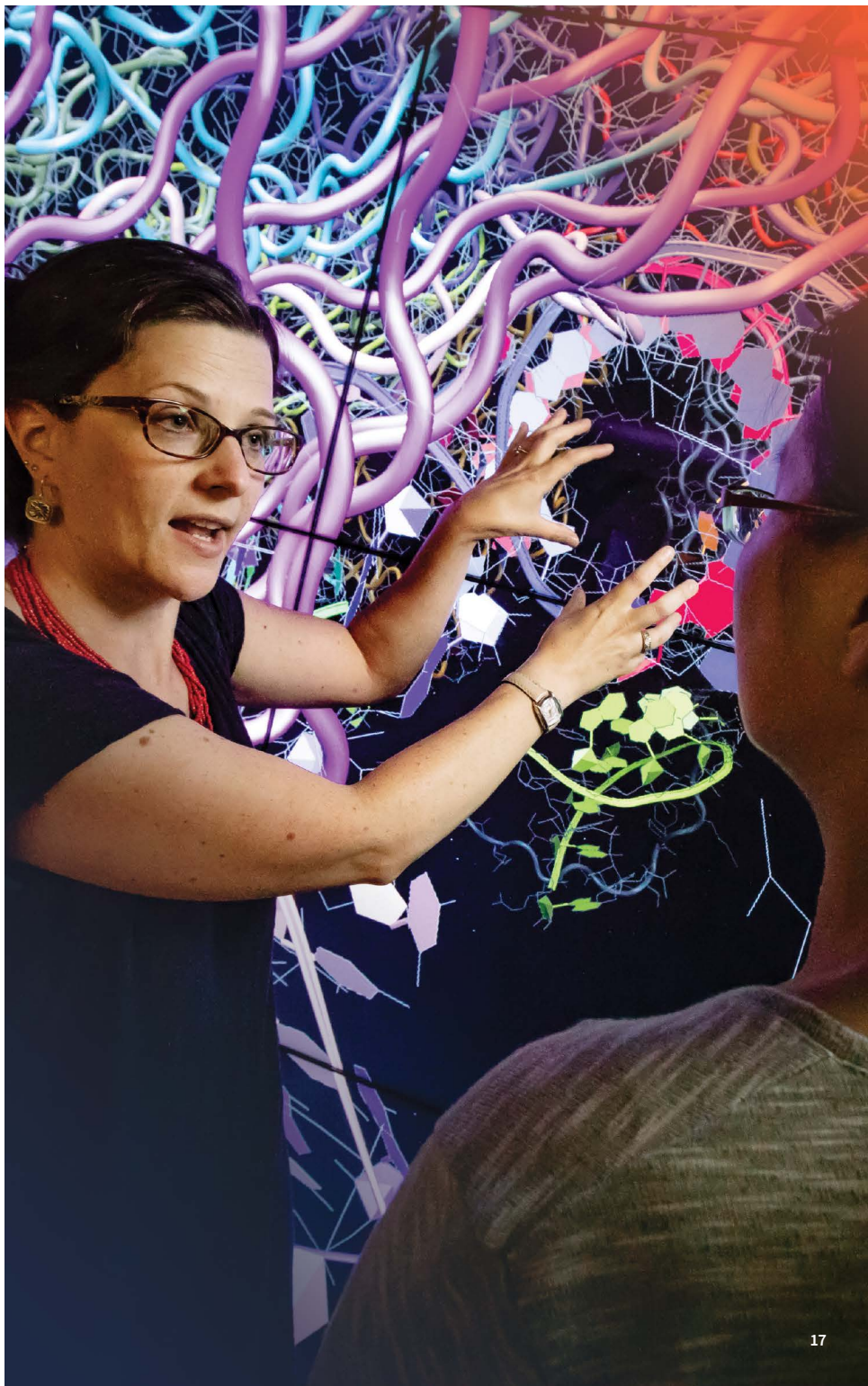
Tenure Track Faculty: 23  
Undergraduate rank: #6  
Undergraduate population: 654  
Graduate rank: #7  
Graduate population: 289

### **Agricultural and Biological Engineering**

Tenure Track Faculty: 18  
Undergraduate rank: #3  
Undergraduate population: 234  
Graduate rank: #4  
Graduate population: 64

### **Bioengineering**

Tenure Track Faculty: 15  
Undergraduate rank: #19  
Undergraduate population: 371  
Graduate rank: #19  
Graduate population: 187



## **Chemical and Biomolecular Engineering**

Tenure Track Faculty: 19

Undergraduate rank: #6

Undergraduate population: 475

Graduate rank: #12

Graduate population: 133

## **Civil and Environmental Engineering**

Tenure Track Faculty: 56

Undergraduate rank: #3 and #3

Undergraduate population: 713

Graduate rank: #2 and #1

Graduate population: 550

## **Computer Science**

Tenure Track Faculty: 76

Undergraduate rank: #5

Undergraduate population: 2,602 (includes CS+X programs)

Graduate rank: #5

Graduate population: 2,716

## **Electrical and Computer Engineering**

Tenure Track Faculty: 74

Undergraduate rank: #5 and 4

Undergraduate population: 1,157

Graduate rank: #4 and 5

Graduate population: 692

## **Industrial and Enterprise Systems Engineering**

Tenure Track Faculty: 19

Undergraduate rank: #15

Undergraduate population: 592

Graduate rank: #15

Graduate population: 212

## **Materials Science and Engineering**

Tenure Track Faculty: 25

Undergraduate rank: #2

Undergraduate population: 260

Graduate rank: #2

Graduate population: 222

## **Mechanical Science and Engineering**

Tenure Track Faculty: 44

Undergraduate rank: #5

Undergraduate population: 1157

Graduate rank: #5

Graduate population: 470

## **Nuclear, Plasma, and Radiological Engineering**

Tenure Track Faculty: 12

Undergraduate rank: NR

Undergraduate population: 138

Graduate rank: #8

Graduate population: 134

## **Physics**

Tenure Track Faculty: 55

Undergraduate rank: NR

Undergraduate population: 483

Graduate rank: #9

Graduate Population: 347

## GETTING STARTED

Explore the many ways to engage with The Grainger College of Engineering by contacting one of our team members listed below, or visit: [grainger.illinois.edu/corporate](http://grainger.illinois.edu/corporate).



### **Kent Studer**

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# GRAINGER ENGINEERING

We're The Grainger College of Engineering to honor our long and generous relationship with The Grainger Foundation. William Wallace Grainger graduated from the college in 1919 and went on to found W.W. Grainger and The Grainger Foundation, which has provided the college with more than \$300 million in total support.

This is the largest naming gift to a public college of engineering. This benefits every student by supporting modern learning environments, life-changing research, and greater access to one of the best engineering programs in the world.



## The Grainger College of Engineering

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