Partnering



VIRGINIA COMMONWEALTH UNIVERSITY

School of Engineering



PREMIER RESEARCH UNIVERSITY, AND YOU CANNOT COMPETE ON AN ECONOMIC LANDSCAPE, WITHOUT A ROBUST PRESENCE IN ENGINEERING. VCU HAS THAT. 37

- Michael Rao, Ph.D.

President, Virginia Commonwealth University

A 360° VIEW OF **CORPORATE PARTNERSHIP**



Nuclear Engineering Program / Microgrid

Dominion suggested the implementation of a nuclear engineering program at VCU and assisted in both funding the program and identifying eligible faculty. Many nuclear engineering projects have been financially and informatively supported by Dominion, including an educational nuclear simulator.

In 2012, Dominion and VCU implemented the microgrid project, a localized grid designed to measure the electrical consumption of every device in the School's West Hall.



Dominion Night / Capstone Design Expo

Dominion hosts an exclusive networking event each year wherein Engineering students and alumni learn about job opportunities at Dominion and network with niring managers.

hey also help to support and judge the School of Engineering's Capstone Senior Design program.



Volunteering

Each year, Dominion participates in several programs at VCU. They sponsor a summer science teacher workshop with the School of Engineering and assist with mock interviews with engineering students.



Mary Doswell

Mary Doswell (Senior Vice President at Dominion) serves as board president of the VCU School of Engineering Foundation.

Additionally, Dominion employees serve on several other department-level advisory boards including the Nuclear Engineering Advisory Board

George Brimmer

George Brimmer (2014 Electrical Engineering graduate) interned with Dominion in summer 2013.

Over the past five years, Dominion has provided 113 VCU students with internships. Out of these, 62 were engineering students, and 42 of those were hired as full-time employees.



Financing

Dominion has provided over \$2 million in support to the School of Engineering.



SCHOLARSHIPS **Dominion**[®]

EMPLOYMENT

INTERNSHIPS

DONATIONS

BOARD

PROGRAMS

ENGAGEMENT

Nico Andrade (class of 2015) is recipient of the Dominion Scholarsh in Engineering

Dominion has a variety of scholarships including the Dominion Diversity Scholarshi and the Dominion Credit Union Scholarship



VCU Graduates

In addition to interns, Dominion hired 94 VCU graduates to be full-time employees in the last five years, bringing the total number of VCU School of Engineering hires to 53.



DEGREE PROGRAMS

Engineering Graduate Programs

- M.S. in Biomedical Engineering
- M.S. in Engineering
 - Electrical & Computer Engineering
 - Chemical & Life Science Engineering
 - Computer Science
- M.S. in Mechanical & Nuclear Engineering
- Ph.D. in Biomedical Engineering
- Ph.D. in Engineering
 - Electrical & Computer Engineering
 - Chemical & Life Science Engineering
 - Computer Science
- Ph.D. in Mechanical & Nuclear Engineering

Engineering Undergraduate Programs

- B.S. in Biomedical Engineering
- B.S. in Chemical & Life Science Engineering
 - Concentration in Chemical Engineering
 - Concentration in Life Science Engineering
- B.S. in Computer Engineering
- B.S. in Computer Science
- B.S. in Electrical Engineering
- B.S. in Mechanical Engineering
 Concentration in Nuclear Engineering

Engineering Student Organizations

At VCU School of Engineering, student clubs and organizations bring together like-minded young engineers in the spirit of cultivating friendship, strong connections and hands-on learning.

- AIChE: American Institute of Chemical Engineers
 AIChE promotes networking and social activities among students
 and professionals interested in chemical engineering.
- ANS: American Nuclear Society
 The VCU student section of the ANS organizes professional development and outreach activities in all areas of nuclear science and technology
- ACM-SC: Association for Computing Machinery ACM-SC is a student organization in the Department of Computer Science with a focus on building a strong coalition of competitive programmers to advance VCU in the ACM International Collegiate Programming Contest.
- BMES: Biomedical Engineering Society BMES holds social gatherings for students interested in professional activities related to the field of biomedical engineering.
- EWH: Engineering World Health Through EWH at VCU, students travel abroad and create engineering projects to improve health care in developing countries.

VCU STUDENT DEMOGRAPHICS (based on 2014 data)

31,163 students

23,962 undergraduates

5,483 graduates **1,718** first professionals

81% full-time42% male57% female

American Indian/Alaskan <1%
Asian 12%

Black/African-American 15%
Hawaiian/Pacific Islander <1%
Hispanic/Latino 6%

White **52%**International **5%**

Two or more races 4%

Not reported 5%



Dean Barbara Boyan, Ph.D., and Ed Grier, Dean of VCU School of Business, at SunTrust Center. The School of Engineering boasts a strong, collaborative relationship with the School of Business.

SCHOOL LEADERSHIP

Barbara D. Boyan, Ph.D. Dean, VCU School of Engineering

Mary Doswell, Dominion and Dean Barbara Boyan, Ph.D.

Barbara D. Boyan, Ph.D., dean of VCU School of Engineering, is a nationally acclaimed researcher and entrepreneur. Her laboratory research focuses on research related to all aspects of bone and cartilage biology.

An industry leader and major proponent of improving the quality of life around the world, Dean Boyan has founded a number of biomedical technology companies and currently serves on the boards of both public and private companies.

Prior to VCU, Dean Boyan was Associate Dean for Research and Innovation in the College of Engineering at the Georgia Institute of Technology. In 2012, she was elected to the National Academy of Engineering.

A leader and member of many professional and academic organizations, she is an active proponent of collaboration and interdisciplinary studies within the university and industry.

RECRUIT OUR TALENT



Engineering Career Services works diligently to build relationships within the corporate community to assist companies in advancing their brand as an employer of choice among VCU engineering students. We offer a number of ways for employers to find the perfect candidate including:

- Access to HireVCURams, our FREE web-based recruiting site for VCU students.
- Internship and Career Fairs featuring hundreds of our most career-ready students.
- Coordinated site visits where students can experience firsthand what it's like to work for your organization.
- Corporate Connections Day sponsorships, which include an exclusive marketing opportunity and the chance to network with hundreds of students over a coffee hour followed by a more intimate conversation with students over lunch.
- Interview space for your **on-campus interviews**, providing convenience to you and the students.



Interns

Hiring interns can be exceptionally beneficial for companies. Not only are you granting VCU students the opportunity to develop professionally, but the role of the intern can prove to be an extremely valuable asset to your company! Engineering Career Services is happy to assist you in developing your internship program. Contact us today to get started!



Banner campaign with student inter

Cooperative Education

Combining rigorous classroom study with real-world experience is a powerful way to learn. By taking part in the VCU School of Engineering cooperative education experience, you provide engineering students the opportunity to use their advanced engineering and problem solving skills to benefit your organization. Through the co-op program, VCU School of Engineering students have the opportunity to work full-time during the fall and/or spring semester for a competitive rate of pay. Interested in learning more? Contact us today!

Contact Us

For more information, please contact: Anita Hazel Taylor, director (804) 827-7028 | ahtaylor2@vcu.edu



Faculty Research

In the 2014-2015 academic year, the School strengthened its core faculty by introducing 22 new professors and researchers. There are plenty of top-tier research ventures in which industry leaders can invest at VCU School of Engineering.

For more information, please contact: Ram Gupta, Ph.D.

Associate Dean for Research (804) 828-1211 | rbgupta@vcu.edu

USE OUR TALENT



Vertically Integrated Projects

The Vertically Integrated Projects program, or VIP@ VCU, is a multi-semester team-based opportunity for undergraduate students to connect with cutting-edge faculty research. Industry partners can get involved with VIP@VCU through sponsoring team projects and mentorship activities.

For more information, please contact:

Robert Klenke, Ph.D., VIP@VCU Director (804) 827-7007 | rhklenke@vcu.edu

Capstone Design

The Capstone Design experience is the perfect chance for undergraduate seniors, faculty and industry advisers to transform an idea into a prototype. At the 2015 Capstone Design Expo, approximately 70 student team projects featured their solutions to real-world engineering demands.

For more information, please contact:

Ben Ward, Ph.D., Capstone Design Director (804) 828-6371 | bcward@vcu.edu

USE OUR FACILITIES



Nanomaterials Core Characterization

At the Nanomaterials Core Characterization (NCC) Facility, resources and services are available by contract to university faculty and industry affiliates. This facility offers technologies to a broad spectrum of multidisciplinary areas in order to modify, manipulate, or tailor the surface, size, or shape of a particular material. With the NCC, you gain access to over \$11 million in sophisticated materials characterization equipment and analytical services unique to the mid-Atlantic region.



TRIP Facility

The Translational Research Innovation Projects (TRIP) Facility is a unique collaborative area that offers VCU faculty and business partners a space for innovative product prototype design and development. The Innovation Shop is equipped with 3-D printing capabilities, manual and CNC machine tooling centers, laser engraving, product assembly space and general shop tools.



Wright Microelectronics Center

The C. Kenneth and Dianne Harris Wright Virginia Microelectronics Center is an interdisciplinary collaboration between the five VCU engineering departments. It features a 7,500-square-foot Class-1000 cleanroom for the fabrication and development of a wide array of micro- and nanofabricated devices, as well as state-of-the-art materials.

To learn more, contact: Philip O'Connor | Corporate Relations Officer | (804) 828-9551 | oconnorpl@vcu.edu



Virginia Commonwealth University, Monroe Park Campus

VCU INFORMATION

About the University

A diverse campus lends itself to diverse honors, rankings, collaborations and solutions. As a premier public research university, VCU thrives on interdisciplinary energy and invigorating partnerships to fuel our students' need to succeed. The impact is on the lives, health and wellbeing of people around the world. The evidence is in our preeminent medical center, 34 nationally acclaimed graduate programs, top art school and the metropolitan feel of Richmond.



Virginia Commonwealth University offers...

- 63 programs unique in Virginia
- The #1 public university arts and design program in the country
- 22 top 50 nationally ranked graduate programs
- A strong relationship between VCU School of Engineering and VCU School of Business – an institution among the 5% of business schools worldwide accredited by AACSB International
- The only Level 1 trauma center in Central Virginia
- Over 100 countries represented in a diverse student population
- Historic charm coupled with a lively cityscape
- Local restaurants and flavorful festivals
- Cary Street Gym named among the 20 most impressive college gyms and student recreational centers

Richmond, Virginia

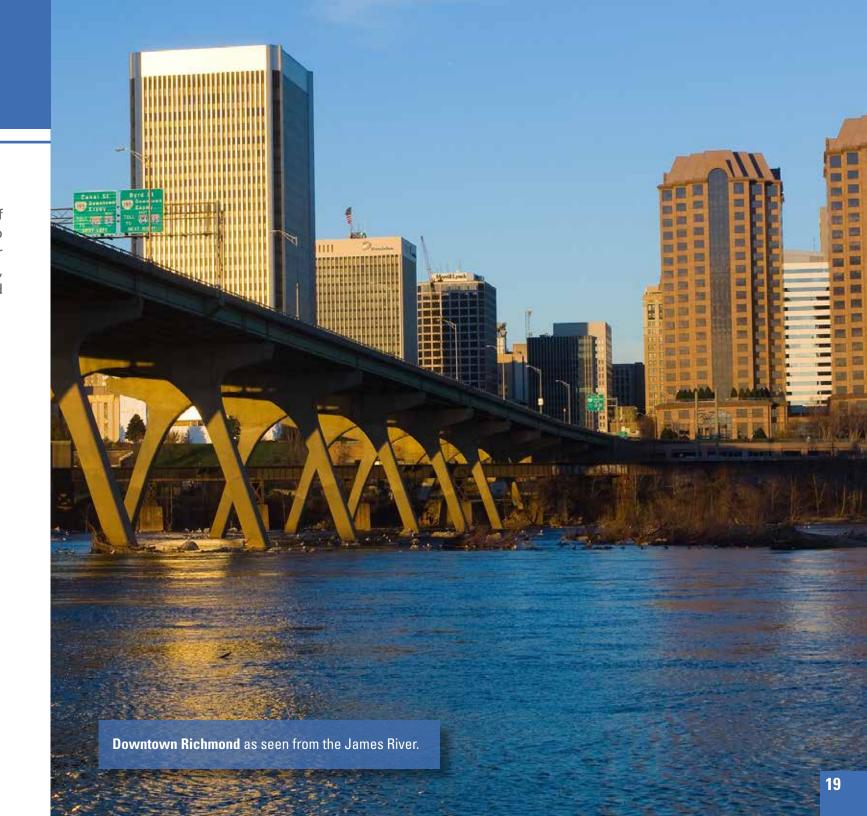
Some call it an urban campus. We consider it an urban canvas. VCU's location – smack in the middle of Virginia's capital city – allows our students to draw on every facet of the metropolitan environment to sculpt their VCU experience. From the historic landmarks, museums, art galleries, the abundance of outdoor recreational activities, festivals, and incredible food scene to the Fortune 500 companies and start-ups, Richmond offers students a unique experience. Here are a few reasons students and residents are proud to be a part of such an amazing city.



The city of Richmond has been...

- Named among the 50 Best Places to Live in US *Men's Journal*, March 2015
- Ranked as one of 8 "Under-the-Radar Foodie Cities" Huffington Post, September 2014
- Listed in top 10 cities for finding a job in accounting or finance *Accounting Principals*, August 2014
- Named "most content area" in America

 U.S. National Bureau of Economic Research, July 2014
- Named 10th best city for overall small business friendliness *Thumbtack.com*, June 2014
- Named top "Affordable Summer Driving Destination" CBS This Morning, May 2014
- One of the top 20 fittest cities in America *ACSM's American Fitness Index*, January 2014





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About VCU School of Engineering

Since its inception in 1996, the School of Engineering at Virginia Commonwealth University has brought innovative, real-world engineering education to Central Virginia. The School currently teaches 1,652 undergraduate and 265 graduate students. Driven to be the national model for innovation in engineering and research, the School offers B.S., M.S. and Ph.D. degrees in mechanical, nuclear, biomedical, electrical, computer and chemical and life science engineering, computer science and a hybrid mechanical and nuclear engineering doctoral program. Cross-disciplinary focus areas include: Sustainability and Energy Engineering, Micro and Nano Electronic Systems, Pharmaceutical Engineering, Mechanobiology and Regenerative Medicine, Security and Mining of Big Data, and Device Design and Development.

Interdisciplinary research opportunities are offered through the School's Nanomaterials Core Characterization Facility, the Institute for Engineering and Medicine, the C. Kenneth and Dianne Harris Wright Virginia Microelectronics Center, the Translational Research Innovation Projects Facility, the Dean's Undergraduate Research Initiative, and the da Vinci Center. To learn more, go to www.egr.vcu.edu.



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