The Paulley Pavilion entrance of East Hall.
Contents

FEATURES

2 East Hall Dedicated

NEWS

7 Health and Life Sciences Building Takes Shape
7 Engineering Career Center Takes Off
8 Two Named Goldwater Scholars
8 New Residence Hall Offers Deluxe Accommodations
9 Nuclear Engineering Track Masters Degree Offered
9 Phi Kappa Phi Initiates New Members
10 Recruitment Initiatives Yield Results

FACULTY NEWS

11 Wayne Named Engineer of the Year
11 Gad-el-Hak Edits Book
12 Rao Receives CAREER Award
13 Speich Honored by Virginia FIRST
13 Pidaparti Leads Novel Student Design Team Project
14 Qimonda Project Award Recipients Named
14 Hobson Honored by Dominion
15 Faculty Spotlight

CLASS NOTES

10 Diploma Ceremony Planned for May
16 Alumni Updates

BOARDS

Board of Trustees, Parents Council, Alumni Board
EAST HALL

Opening Celebrated

East Hall is a marvel of innovation, technology and vision. The building is uniquely designed to allow students to integrate learning experiences seamlessly across disciplines. State-of-the-art technology is encountered throughout the thoughtfully designed space. But none of this would have been possible without the enthusiasm and generosity of the school's leadership and its dedicated alumni.

Pictured, at top, VCU president Dr. Eugene P. Tiani welcomes the enthusiastic crowd to the dedication ceremony on April 9, 2008. At right, Foundation board president Paul Rochelleau addresses the audience. Below, the entrance to East Hall.
Dedication Ceremony Honors Supporters

The dedication of the School of Engineering East Hall was held on April 9, 2008, and realized the culmination of years of planning, fundraising and construction. Hundreds of friends of the University gathered on the lawn at the site of East Hall and the new School of Business to reflect on and celebrate the occasion.

Governor Tim Kaine delivered the keynote address and was joined by honored guests including General Assembly delegate and longtime friend of the School of Engineering, Walter Stoch. Foundation board president Paul Rochelleau greeted guests on behalf of the board members and acknowledged Bill and Alice Goodwin for their extraordinary generosity and leadership during the capital campaign that funded the construction of the new space. Dean Russ Jamieson spoke about the tremendous impact that East Hall will have on the growth of the School and acknowledged the heroic efforts of former deans Henry McGee and Bob Mattmauch in moving the School forward to this point. He also spoke about the immeasurable contributions to the planning and design of the building made by the late Bart Cregger, associate dean of the School, who died suddenly in March 2007.

Following the dedication ceremony guests gathered in the Qimonda Atrium for a reception followed by a celebratory dinner. Former Virginia governor and founding trustee of the Foundation board George Allen spoke with great pride about the strides the School has made since its founding in 1996. Allen was instrumental in supporting the School’s beginnings during his term as governor.

More than $45 million was raised from private sources to fund the East Hall construction. The state-of-the-art building houses forty-eight research laboratories, fifty faculty offices, instructional and computer labs and multiple other student spaces.

“"We want the VCU engineering program to be at the forefront of innovation and change. There is no doubt the traditional engineering curriculum will be enhanced with closer interaction between engineering and business and engineering and medicine... As we look to the future, we think the best is yet to come.”

Paul Rochelleau, President
School of Engineering
Foundation Board

"In the two years I have had the privilege to be dean of the School of Engineering at VCU, I have had an opportunity to spend time with many of you who share the credit for this accomplishment... I want you to know that this generation of students and the next and the next will benefit from your efforts. To the members of the Foundation board who have given so selflessly of their gifts and energies; to the alumni of the School still beginning their own careers but remarkably generous of their time and talent; to corporate leaders throughout Richmond and the region... I offer my heartfelt thank you for making this possible."

Russ Jamieson
More than $45 million was raised from private sources to fund the East Hall construction. The state of the art building houses forty-eight research laboratories, fifty faculty offices, instructional and computer labs and multiple other student spaces.

Construction is underway on the newest addition to the School of Engineering, the Health and Life Sciences Engineering building (HLSE). The new facility is a $43.5M VCU capital project made possible by funds and bonds from the Commonwealth of Virginia. The Health and Life Sciences Engineering building will physically bring together interdisciplinary faculty researchers from the Schools of Engineering, Medicine, and Life Sciences and provide cost-effective, shared facilities for state-of-the-art research. The space will be characterized by the sharing of knowledge and resources to address the most challenging problems in the life and health sciences from a quantitative engineering perspective. Physically, the HLSE building represents a state-of-the-art "flex" lab design allowing for a rapid reconfiguration of functional laboratory space to serve the particular needs of the users. As the users and project scopes change over time, the lab is designed to immediately and physically adjust to those changes. Overhead docking stations, mobile lab benches, and open "bull room" design are key elements of the space. The building, scheduled to open in spring 2009, is designed to be approximately 70% flexible in configuration, making it one of the most versatile research facilities in the U.S.

Business/Engineering Career Center Takes Off

With the opening of East Hall and the new School of Business, the Business and Engineering Career Center became a reality and opened its doors in Suite B1102, in the crescent of the new space. One goal of the Business and Engineering Career Center (BECC) is to provide quality, on location, consulting and services to the students of the two schools.

Another goal of the BECC is to meet the needs of the business community as they recruit and hire our students. A range of options, from career fairs to information sessions to showcases allow companies to increase their presence on campus and improve yield on their recruiting activities. For more information on the Business/Engineering Career Center, please contact Mike Eisenman at 804-828-7102 or meisenman@vcu.edu.
News

New Residence Hall Offers Deluxe Accommodations

The new Monroe Park Residence Hall will provide living space for junior and senior art, business, and engineering students. The residence hall is scheduled to open in fall 2008.

A Monroe Park Campus student residence hall for upperclassmen majoring in art, business or engineering in under construction and scheduled to open in fall 2008. The residence hall, located at the corner of Belvidere and Cary streets, is a manifestation of the new fusion between the three schools and will offer admission to junior and senior students. Allocation of the deluxe two and four-bedroom apartments will be determined by student application with a recommendation from the respective School administration.

Goldwater Scholars Named

Two School of Engineering sophomores are among four VCU students that have been awarded the Goldwater Scholarship, a premier national scholarship for undergraduate students. Mary Beth Bird, from Lexington, Va., majoring in biomedical engineering, and Allison de Groot, from Washington, D.C., also majoring in biomedical engineering are the recipients of the prestigious awards.

"We are proud of these students for earning this extremely competitive honor," said Stephen D. Gottfredson, provost and vice president for academic affairs at VCU. "With their success, these students illustrate the outstanding scholarship and teaching excellence at VCU.

The Goldwater Scholars are selected on the basis of academic merit. This year, 321 scholarships were awarded to sophomores and juniors from a field of more than 1,000 applicants.

The one- and two-year scholarships cover the cost of tuition, fees, books and room and board up to a maximum of $7,500 per year.

The Goldwater Scholarship Program, which honors former U.S. Sen. Barry M. Goldwater, was designed to foster and encourage outstanding students to pursue careers in the fields of mathematics, the natural sciences and engineering.

Nuclear Engineering Track Masters Degree Offered

Graduate students at VCU School of Engineering are now able to obtain a Master of Science degree with a nuclear engineering focus. The new program, the result of a partnership between the School of Engineering and Dominion Resources, addresses the increasing need for nuclear engineers prompted by the re-emergence of nuclear power as an alternative to fossil fuels. As the number of nuclear reactors in production in the US grows to a thirty-year high, an increase attributed to the cheaper costs of producing electricity from nuclear power rather than alternative sources such as solar, biomass, or wind, the workforce pool of skilled nuclear engineers has diminished.

Classes begin in the new course this semester with seventeen students pursuing the nuclear engineering focused MS degree. Of the current program enrollment, most students are engineers presently working full-time and some are area high school teachers. "VCU recognized a need in the Commonwealth to provide a skilled workforce in nuclear engineering," said Rosalyn Hobson, Ph.D., associate dean for graduate studies at the School of Engineering. "We now offer the only program in the state that grants a MS degree with a concentration in nuclear engineering."

Students Recognized for Excellence

Eight School of Engineering students have been inducted into the VCU chapter of Phi Kappa Phi, the nation’s oldest, largest, and most selective all-discipline honor society. The Society, whose mission is "to recognize and promote academic excellence in all fields of higher education and to engage the community of scholars in service to others," was founded in 1897 and has had a chapter at VCU since 1976. To be considered for membership students must have a minimum GPA of 3.5, be in the top 7.5 percent of their class, and have completed a minimum of 72 credits with at least 24 of those credits taken at Virginia Commonwealth University. School of Engineering inductees are: Hersch Bhatta, Ezekial Brody, Andrew William Harris, John Hickman, Anthony Michael Kirkland, Justin Marc Owen, Joseph Rainey, and Yiyan James Rao.
School to Recognize Graduates

The School of Engineering will honor its undergraduates and graduate candidates for degrees at a ceremony to be held on Friday, May 16, at 6:00 p.m. at the Greater Richmond Convention Center. A long-standing tradition at the School, the diploma ceremony is held the evening before the VCU commencement exercises and is an opportunity for graduates, their families and friends to celebrate together with School faculty and administrators. Rick Sharp, Managing Director of VCU Capital Partners, Chairman of Crocs®, Former Chairman of CarMax®, and Former CEO of Circuit City® will deliver the keynote address. Mr. Sharp is a Founding Trustee of the School Foundation Board. A reception for all attendees will be held at the Convention Center immediately following the ceremony.

Recruitment Update

While applications to engineering schools around the country are declining, applications to VCU Engineering have increased by approximately 20% over last year. Currently, over 1,500 applications have been received for a freshmen class of 300 students and the quality of the student application pool is impressive, according to new Director of Recruitment Anita Hazel Taylor. Taylor credits the growing reputation of the School and the excellent prospects for employment enjoyed by newly graduating engineers with the marked increase. "Attracting high-quality students to VCU Engineering is our first priority and we work to establish and strengthen the relationship between high school faculty, their students, and our School," said Taylor.

Recent recruiting visits:
- School Without Walls – Washington, D.C.
- McKinley Technology High School – Washington, D.C.
- Benjamin Banneker Academic High School – Washington, D.C.
- Appomattox Regional Governor’s School for Arts and Technology – Petersburg, Virginia

What’s in the works:
Building articulation agreements with community colleges.

These agreements detail the community college classes that will transfer to one of our degree programs and create a smooth framework for students to transition here successfully. Relationships exist between several community college systems and the School and more are being developed.

Jennifer Wayne Named Engineer of the Year

Jennifer Wayne, Ph.D., has been named Engineer of the Year by the Richmond Joint Engineers’ Council in recognition of her academic, leadership and career achievements and her dedication to and integrity for the engineering profession. Dr. Wayne is the Director of VCU’s Orthopedic Research Lab, a joint venture between the VCU Department of Biomedical Engineering and the MCV Department of Orthopedic Surgery. Current research areas being investigated include the Detection of Joint Infection, Total Joint Arthroplasties, Shoulder/Elbow Biomechanics, and Ankle/Foot Biomechanics.

The Richmond Joint Engineers’ Council, an all-volunteer coalition of engineering, scientific and technical societies, promotes engineering education and provides a vehicle to disseminate knowledge and information relating the art and science of engineering to its member societies and the general public.

Gad-el-Hak Edits Book

The broad research field of disasters is dominated by social scientists, psychologists, logisticians, tacticians, and health-care professionals. Up to now, scientists and engineers played a lesser role in disaster research. Mohamed Gad-el-Hak, the School’s Jesse Candell Eminent Professor of Biomedical Engineering and chair of mechanical engineering, is determined to change the playing field. "A disaster is a mechanical system, a dynamical system," Gad-el-Hak says. "If you have the right equations that describe the dynamics and if you can solve them, you can predict a disaster’s evolution." Gad-el-Hak’s most recent book, Large-Scale Disasters: Prediction, Control and Mitigation, puts natural and manmade disasters in the same framework and scale.

"Extreme" events—including climatic events, such as hurricanes, tornadoes, drought—can cause massive disruption to society, including large death tolls and property damage in the billions of dollars. Events in recent years have shown that many countries need to work together to help alleviate the resulting pain and suffering. Gad-el-Hak’s book presents an integrated review of the broad research field of large-scale disasters and establishes a common framework for predicting, controlling and managing both natural and manmade disasters. There is a particular focus on events caused by weather and climate change. Other topics covered include air pollution, tsunamis, disaster modeling, the use of remote sensing and the logistics of disaster management.
Raj Rao wins NSF CAREER Award

Raj Rao, Ph.D., assistant professor of chemical and life science engineering, has received a National Science Foundation Career Award, one of the foundation’s most prestigious awards, to engineer systems to propagate stable human embryonic stem cells in the laboratory setting and to educate students and the general public about the latest advances in stem-cell research.

Previous work conducted by Rao and colleagues demonstrated that human embryonic stem cells are prone to genomic instability based on their propagation conditions. The award will fund research that aims to ascertain molecular mechanisms that cause these changes and develop propagation systems that aim to be efficient, while generating high quantities of stable, human embryonic stem-cell lines.

The award also will enable Rao to develop educational and laboratory modules for high school students, undergraduate students and the general public. These modules will increase awareness of engineering, molecular genetics and cellular biology skills. He will work with high school teachers, public educators at museums and faculty at undergraduate universities to disseminate the information.

Through this project, the goal is to communicate and engage students and the general public about the far-reaching potential of research in this field.

John Speich Recognized by FIRST Robotics

John Speich, associate professor of mechanical engineering, was recognized by Virginia FIRST robotics for his contribution to the organization’s regional competition, held recently at the VCU Siegel Center. Dee Tomczak with Virginia FIRST presented Speich with the award.

"John has coordinated countless schedules, completed a mountain of paperwork, ordered food, managed budgets, gotten in early, stayed far too long, talked to countless people on the phone, and emailed even more than that in order to help pull together the VCU workshops, the kickoff, the services of the machine shop, the mentorship class, and the Open House event for all team participants. On top of the responsibilities of a young family and a teaching career, he has stepped up to take on the duties as the liaison between VCU and Virginia FIRST. FIRST (For Inspiration and Recognition of Science and Technology) seeks to inspire young people to be science and technology leaders. More than sixty high school teams from around the country participated in the regional competition with the winners advancing to the national competition to be held in Atlanta, Georgia, this spring."

Pidaparti Leads Novel Senior Design Project

A School Senior Design team, led by mechanical engineering professor Rumana Pidaparti, has developed the design and construction plans for a coffee bistro to be located in Monroe Park. Pidaparti and the mechanical engineering student design team consisting of Aaron Page, Alex Haas, Anthony Gennai and Greg Scollia is working on the project in conjunction with the City of Richmond and VCU Facilities Management.

The bistro design will incorporate recycled and smart materials that will reduce the use of manufactured materials and include energy saving components. Examples are the use of a vegetated roof, solar energy and innovative water storage. The proposed bistro will also use design aspects to reduce the annual electrical usage, water usage, and waste disposal costs. The design team is planning to use the guidelines set forth by the U.S. Green Building Council’s LEED® accreditation system during the construction phase of the building.

A primary goal of the project is to illustrate how the design process can help in developing innovative structures to sustain the community. The design group has strived to illustrate concepts related to sustainability and green design that will be visible to students, visitors and other customers that will patronize the bistro.
Rosalyn Hobson
Honored by Dominion

Rosalyn Hobson, Ph.D., associate dean for graduate studies and faculty member in the department of electrical and computer engineering, has been named one of Dominion's Strong Men and Women for 2008 in recognition of her academic, leadership, and career achievements.

Dominion's Strong Men and Women program, now in its 18th year, provides area youth with positive African-American role models whose accomplishments and determination demonstrate true excellence in leadership.

"If these ... honorees are a sample of the role models the youth of today will emulate, then our world is in good hands," said Thomas F. Farrell II, chairman, president and chief executive officer of Dominion.

Hobson received her bachelor's, master's and doctorate degrees in electrical engineering from the University of Virginia and has received more than $1.5 million in research funding. Her current research involves artificial neural networks and their application to control problems, intelligent systems, biological modeling and signal-processing issues.

Frank Gupton

After a professional career in chemical process development, Frank Gupton joined the School faculty in December 2007. He filled in the details about his life and work for us in a recent interview:

So what did you do before coming to the School of Engineering?

Immediately before taking this position I was the executive director of process development for North American operations for Boehringer Ingelheim (the largest privately held pharmaceutical company in the world).

What did you work on there?

Lots of different projects. I was responsible for the transfer of technology and launch of one of the first drugs used in the initial AIDS 'cocktail' and later led the team that developed the second generation process for that drug. The development of these new processes meant that the drugs were made much more affordable. This opened access to the drugs to Africa, the country where AIDS had taken the greatest toll.

What brought you to the School of Engineering?

I had worked with many chemical engineers through the course of my career and always found that cross-training between chemists and engineers made each discipline much more valuable. I wanted to change course and contribute to the future of the field in some small way.

What are you working on here?

Basically my work here is focused on developing efficient methods of preparing heterocyclic building blocks for pharmaceutical applications and preparing a lab space to work on asymmetric reductions for pharmaceutical applications that will have a positive environmental pharmacological impact.

What do you do for fun?

I have a home on the beach at Sandbridge and spend a lot of time there with my family.

Any thoughts on your time here so far?

I'm impressed by the breadth of research being done within the School. I'm really looking forward to teaching an interdisciplinary graduate course in the fall with the department of chemistry and the MBA program that will lead students through the development and commercialization of chemical processes. The collaborative work being done between Schools at VCU is really exciting and I'm proud to be part of it.