Our goal at the Engineering School is captured in our slogan, Developing Leaders of Innovation. As we interpret it, innovation means more than just having a flash of inspiration or making a discovery. It means translating ideas and discoveries into products and services that benefit society. We’ve witnessed a growth of interest in that process over the last few years, and we’re now looking at ways to strengthen our knowledge-transfer offerings.

The Engineering Business Minor, established with funds from an alumni donor and offered in partnership with the McIntire School of Commerce, is one way we have tapped the resources of the University to offer our students a distinctive educational experience. We hope to expand our partnership with the McIntire School and to forge new partnerships with others in the University to develop and offer innovative programs to our students. This type of curriculum will help them whether they intend to start their own enterprise or effect change as so-called “intrapreneurs” within an established organization.

We are encouraged by interest in entrepreneurship in the Office of the Vice President for Research, which, under the leadership of Tom Skalak, has shown a strong commitment to fueling a knowledge-transfer movement at the University. That office includes a highly productive Patent Foundation, which has set up a satellite office in Thornton Hall, as well as the visionary leadership of W. Mark Crowell, who was hired this past spring as the University’s first executive director and associate vice president for innovation partnerships and commercialization.

From visionaries in the wireless health field, to social entrepreneurs bringing clean water to Africa, to developers of innovative medical devices and creators of high profile websites, our faculty, students and graduates are making their mark in the business world and beyond. And our students are clamoring for more classes and programs that can help them follow a similar path. Our ability to develop new programs in this area and to foster the spirit of innovation among our students, however, depends on your investment of support. In effect, we too need venture capital.

Jeff Sands, our new associate dean for development and vice president of the Engineering Foundation, is prepared to make the case for investing in our School. U.Va. engineers are not like other engineers, precisely because they learn here that engineering — a field we all cherish — is not an end in itself, but a tool they can use to serve society. Any investment that broadens their educational experience produces tremendous dividends for us all.

Thank you for your continued interest in and support of the U.Va. Engineering School. Keep in touch with me. Your thoughts and comments on the future of our School are always welcome.

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I feel very fortunate for the time I spent at the University working with Professor Lach and the Center for Wireless Health. Our research provided me with the foundation to create truly transformative products. Furthermore, the University’s culture of entrepreneurship and innovation prepared me for the challenges of technology commercialization.  —Mark Hanson, BeClose Co-Founder

The realm of wireless health care may be a relatively new world. But despite the novel nature of this technology, three engineers with U.Va. ties have quickly established themselves as experts in this rapidly developing field. They are taking their knowledge to the marketplace as technology entrepreneurs and contributing to a greater understanding of the field through academic research.

University of Virginia graduates David Mack (BME ’08) and Mark Hanson (EE, CpE ’03, EE ’09), along with current U.Va. electrical and computer engineering professor John Lach, have been at the forefront of the wireless boom, which has dramatically evolved over the past decade.

According to Hanson, the advancement and convergence of sensor, information processing and wireless technologies — which collectively promote the physical well-being of seniors and people living with disabilities — will play a crucial role in advancing health care over the next 20 years. He points out that by the year 2030, the over-60 population in the country will nearly double, accounting for more than 20 percent of the total population, numbers that he says reflect a growing need for innovative health care solutions.

Wireless sensors such as the ones being developed by U.Va. engineers can monitor everything from a patient’s sleep quality to an individual’s propensity for falls. These technologies will help close a vital data loop, allowing health care providers ready access to information on the daily health status of the patients they care for.

“There’s a real opportunity to help people age gracefully at home, and the time was right to offer this much-needed service,” says Hanson.

Hanson is the co-founder of BeClose, a company that facilitates remote caregiving through the use of wireless

continued on page 6
Mark Hanson (left) and David Mack are part of a larger group of University-affiliated wireless health researchers that includes Jack Stankovic, professor of computer science; Majd Alwan, director of the Center for Aging Services Technologies; and Robin Felder, director of MARC, who recently testified to Congress about telemedicine.

U.Va. Leaders in Wireless Health
health technology. BeClose, which began operating commercially earlier this year, aims to improve the quality of life for people seeking to live independently, and also to provide peace of mind to caregivers. Hanson’s six years of graduate work at the University, which dealt with clinical applications of wireless health sensing, helped to inspire and accelerate the research, development and commercialization of BeClose’s technology and products.

Given that the wireless health care field is in its nascent stage, creating a valuable product will be an evolutionary process, according to Hanson.

“We measure the efficacy of our technology by the impact it has on the families that use it every day,” says Hanson. “When we hear from customers that the service has positively changed their lives, it validates our approach and inspires us to continue evolving this emergent field.”

Like Hanson, David Mack is also involved on the commercial side of wireless technology. Mack is one of the founders of WellAWARE Systems Inc., a Virginia-based developer of wellness solutions for care providers utilizing wireless technology.

When Mack was a graduate student at U.Va., his studies centered around using technology to reduce health care costs. He was a member of U.Va.’s Medical Automation Research Center (MARC), where he focused on the sleep analysis component of the center’s eldercare technology suite.

During that time, he led clinical trials that validated the technology and participated in other field studies that started to build the case for commercialization of the suite as a whole. By the time he graduated, says Mack, he and a group of his colleagues in the center were ready to spin the new-found technology they had worked on into a company.

It took roughly eight years of research and pilot studies before WellAWARE was ready to launch commercially in early 2009. The company, the initial partners of which include the Volunteers of America and the Evangelical Lutheran Good Samaritan Society, offers innovative, affordable sensor technology placed throughout a resident’s living environment. Sensors passively identify changes in vital wellness indicators for seniors regardless of health status within the senior living care continuum. The information is presented through a Web-based software dashboard.

The company, which is dedicated to helping improve seniors’ quality of life, has undergone massive growth over the past two years in terms of employment and production.

“This technology is user friendly and easy to understand,” says Mack. “This is something that can be used in both urban and rural settings. We aren’t aiming to replace nurses. We are instead trying to aid caregivers so they can identify changes in wellness indicators sooner.”

Working through the trials and tribulations of wireless health care collaboration and commercialization at the university level is just as complicated as in the non-academic world. Just ask Lach, who taught Hanson when he was a graduate student. In his current work with wireless health care technology, Lach is engaged in a number of different collaborations, including partnerships with other professors and with researchers in different companies.

According to Lach, who focuses mainly on the design, usage, and application of miniature, body-worn motion sensors — which he says his students call “a full-body Wii” — there has been considerable evolution in this field of technology over the past few years.

“We’ve moved forward in a number of ways with wireless technology,” says Lach. “One of the things that’s happened is that the technology has become more energy efficient. Also, people are beginning to see the value in having interdisciplinary collaborations, such as medical experts working with engineering experts. There are significant challenges associated with forging such partnerships, but they are necessary to achieve the desired results, which are extremely rewarding in the end.”

Ultimately, the availability of wireless health care is crucial to improving care while reducing costs, especially given the imminent growth of the elderly population, says Lach.

“You can identify potential health problems before an incident occurs,” he says of sensor technology. “If you detect a degradation in someone’s walking stability, for example, you can immediately intervene before that person falls. When you put it all together, there is a tremendous need for an alternative like this in society today.”

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**READ MORE:**
- [www.beclose.com](http://www.beclose.com)
- [www.wellawaresystems.com](http://www.wellawaresystems.com)
- [wirelesshealth.virginia.edu](http://wirelesshealth.virginia.edu)
Q: What inspired you to apply for the position of associate dean for development and vice president of the U.Va. Engineering Foundation?

A: Anyone who spends his entire adult life in the academy, as I have, is deeply aware of what a special place U.Va. really is. It stands at the very top of universities in the world, in my view. And the heritage and tradition of U.Va. is remarkably reflected in the Engineering School itself. Technical excellence is essential, and our graduates are second to none on that account. But what really sets us apart is the degree to which our students develop themselves as communicators, collaborators and — here’s the big thing — leaders. It’s no coincidence that U.Va. engineers are disproportionately represented among the leadership rosters in industry, academe, government and other sectors.

Q: What is most important for alumni to know about your approach to leading the Foundation?

A: From major gifts to annual-level giving, the first order of business every day is stewardship. This is an obsession with me. If you’re not doing flawless stewardship with all of your donors at every level, you might as well close up shop. Nobody has to make a gift to the Engineering School. Those people that do make gifts deserve impeccable, proactive stewardship.

I want to make sure we are doing what we promised we would do with their gifts. I want to make sure people understand what their giving is accomplishing. One critical aspect of stewardship is efficiency in terms of managing the Foundation’s budget. We will make sure that we are driving down to an absolute minimum possible the amount of money we spend in order to raise money.

Q: What do you see as the greatest opportunity in your new role?

A: The greatest opportunity is simply the quality and the unique aspects of the U.Va. engineer. That means, in one regard, that the alumni population is highly accomplished, and so there is a great deal of opportunity to engage people in discussions about giving to the School. At the same time, the broad-based curriculum and philosophical underpinnings make giving to the Engineering School attractive to a wide range of donors, many of whom may not be alums.

On September 1, Jeff Sands joined the U.Va. School of Engineering and Applied Science as associate dean for development and vice president of the Engineering Foundation.

He has nearly 20 years of experience in development leadership positions and served 10 years as associate dean for development for the University of Illinois College of Engineering. His achievements at Illinois include leading a development program that raised nearly $400 million and increasing total annual-level giving by 50 percent.

GET TO KNOW JEFF by e-mailing him at jeff.sands@virginia.edu
U.Va.’s Engineering School has always been highly regarded for providing future engineers with both a rigorous program in analytics and problem-solving skills and — unlike most universities — the broader education that prepares graduates to become leaders in their chosen profession.

In this economic climate, engineering’s leaders will be those innovators who can translate their ideas to commercial success, according to Professor W. Bernard Carlson of the Department of Science, Technology, and Society. “What we’re hearing from alumni and students is that there needs to be an emphasis on entrepreneurship — by which we mean those students willing to become agents of change,” says Carlson, “people who can look at ideas and really understand how and where new technology is going to be useful. In 1903, no one needed an airplane; in the 1980s, no one needed the Internet. Entrepreneurs deliberately make connections between people and technology and between technology and markets.”

To help engineers understand market potential, the Engineering School has instituted multiple initiatives. A minor in engineering business, offered through the Department of Science, Technology, and Society beginning in 2004 and which Carlson coordinates, is now bigger than any undergraduate major in the School. At 350 students, it is wildly popular; 20 to 25 percent of engineering students pursue the six-course program, which covers business essentials such as “return on investment” and “value proposition.”

In the meantime, the School’s faculty, administrators, the Office of the Vice President for Research and members of the SEAS Trustees, including Gene Lockhart (ME ’72, Darden ’74), have begun discussing the enhancement of entrepreneurship and commercialization curriculum offerings. Lockhart is the former CEO of MasterCard and an active venture capitalist.

“Indeed, a key concept for this era is ‘intrapreneurship’ — the practice of advancing innovative ideas within an organization rather than launching a startup company,” says Carlson. While the history of innovation and business in the United States is often thought of in terms of heroic individual efforts, that’s not the whole story. In fact, many of this country’s major engineering feats, such as the development of television, occurred thanks to the resources and ability of large, effective organizations to take a discovery and make and market a product. Carlson, who researches technological history, says the United States is poised for intrapreneurship.

“As they face competition in the global economy, American firms have come to realize they need to develop a degree of agility. They have decided to take advantage of new knowledge and to convert it as rapidly as possible into major new products. And there are any number of firms that still have considerable assets in terms of intellectual property and proprietary knowledge. What we need now are entrepreneurs committed to long-term business survival to help corporations take advantage of new technologies.”

READ MORE: www.seas.virginia.edu/acad/programs/engrbusiness.php
Water Solutions:
Seeding Businesses in Developing Countries

By Josie Pipkin

Katherine L. “Kate” Clopeck (MAE, Business Minor ’06) made a business out of passions she developed as a student. She, along with Michael Brown (Comm ’06), founded the not-for-profit social enterprise Community Water Solutions (CWS) in 2008 to further their interest in providing sustainable water-purification solutions to developing countries.

She became interested in international development as an undergraduate, after traveling to Nicaragua on spring break with the student-run group the Nicaraguan Orphan Fund. Eager to use the engineering skills she was developing at school, she joined Engineering Students Without Borders and started learning more about appropriate technologies — simple, low-tech, low-cost technologies specifically designed for the developing world. “More often than not, the simplest solutions are the most sustainable,” says Clopeck. “As an engineer, sometimes you have to take a step back and stop yourself from designing a complicated system just for the sake of it.”

It was her interest in appropriate technology that eventually led Clopeck to study the global water crisis. According to the World Health Organization, waterborne diseases are a leading cause of illness and death in developing countries. “To me, the most shocking thing about this crisis is that solutions exist,” Clopeck explains. “Simple, affordable technologies have been specifically designed to be used by the people in developing countries to treat drinking water. The problem is that these technologies aren’t being implemented in a sustainable way. That’s where CWS comes in.”

Clopeck and her partners have blended technical skills with business knowledge to come up with the CWS model. They address the need for clean water and disease prevention in developing countries by establishing sustainable water-treatment businesses that use readily available, affordable materials to effectively treat and sell clean water at the community level. These businesses are owned and operated by the communities that they serve, and use simple, affordable technologies to enable the treatment, distribution and storage of clean, safe drinking water.

To date, the organization has successfully implemented water businesses in seven villages in northern Ghana, providing permanent sources of clean water for over 5,200 people, including more than a thousand children.

CWS runs a fellowship program in which participants have a three-week water education course and leadership training in the northern region of Ghana. In 2011, CWS will run a total of four fellowship programs.

READ MORE: www.communitywatersolutions.org

U.Va. Engineers Make — and Take — Entrepreneurship Cup

The Entrepreneurial Concept Competition embodies the growing entrepreneurial energy at U.Va. The creation of the bronze Cup to honor its winners represents that same spirit. The cup was designed last spring by the Engineering School’s Rodman Scholars, including Lacey Williams (BME ’13) (left) and Carolyn Pelnik (ChE ’13), and students from the U.Va. Studio Art program.

Last year, graduate students Adam Malcom (MAE ’06, ’10) and Scott Kasen (SIE ’01, ’10) won the Cup with their design and business plan for a self-inflating lifejacket.

READ MORE: www.darden.virginia.edu/web/MBA/Entrepreneurship/Competitions/UVA-Cup
EpiEP Inc., a medical device company spun out of the University of Virginia, has received $1.5 million in investments and commitments for the development of its novel EpiAccess system, which shows promise to improve and expand the treatment of cardiac arrhythmia and other heart conditions.

Based on technology invented by U.Va. faculty members Dr. Srijoy Mahapatra and George T. Gillies and licensed from the U.Va. Patent Foundation, the EpiAccess system has the goal of providing minimally invasive access to the epicardium, the heart’s outermost tissue.

“A significant potential advantage of the EpiAccess system is its ability to help electrophysiologists navigate the tip of the access needle safely onto the outside wall of the heart, thus providing a ready pathway for the instrumentation, such as a catheter or pacing lead, needed to treat arrhythmias,” says Gillies, research professor of mechanical engineering, biomedical engineering and physics at U.Va.

Enabling this access are the system’s on-board retractable needle and sensor capable of measuring the pressure-frequency signals of target tissues. A software algorithm analyzes the pressure-frequency data to help safely guide clinicians’ movement of the needle to the correct site. In addition, the system requires only one 3-millimeter incision, making it much less invasive than standard surgical methods.

The objective is ultimately to use the technology to treat patients suffering from cardiac arrhythmias, such as atrial fibrillation and ventricular tachycardia — and to do so without making a hole in the right ventricle, as Mahapatra says occurs in as many as a third of patients who are treated with existing surgical techniques.

With its advanced precision, the system might also one day be used for safer pacemaker lead insertion, for stem cell and drug delivery, and to reduce the risk of stroke presently associated with endocardial procedures.

The U.Va. Patent Foundation has filed for international patent protection on the researchers’ discoveries, which it licensed to the company in April 2010.

“By joining forces as an interdisciplinary, clinician–researcher team, Gillies and Mahapatra have been able to combine their efforts and unique insights to create a device with the potential to change the quality of life for many people with heart disease,” says Miette H. Michie, interim executive director and CEO of the Patent Foundation. “We applaud them on the development of this innovative system, and we are so pleased to see EpiEP taking this technology to the next stage.”

EpiEP received $1 million from Connecticut Innovations’ Eli Whitney Fund, with additional funding from LaunchCapital and private investors completing its first round of funding. The company is now headquartered in New Haven, Conn.

The investigators’ research was funded by the Johnson & Johnson Corporate Office of Science and Technology, the Wallace H. Coulter Translational Research Partnership and revenues from the U.Va. Patent Foundation.

A Pipeline for Patents

The U.Va. Patent Foundation issued a total of 95 patents over the past five fiscal years (FY06–FY10). Of those 95 patents, 25 percent were issued to the Engineering School.
Who says writing code is boring? For Ben Hughes (CS ’12), writing code is satisfying in itself — he’s been doing it since he was 6 years old — but it has also been his entrée into the world of entrepreneurs and startups. As a result, Hughes is leading his life in double time. He is a computer science major and is the director of technology at NabeWise.com, a new website that helps people in cities find the neighborhood that’s right for them.

“Every big city has scores of neighborhoods,” Hughes explains, “and each neighborhood is a world of its own. Each one attracts a certain kind of people, has its own distinctive culture and its own urban landscape.” For someone trying to get a sense of where to live, NabeWise is a great first stop. It uses ratings from its members to identify the neighborhoods that come closest to a user’s ideal place to live — and then follows up these recommendations with reviews and photo tours. NabeWise provides coverage for New York, San Francisco, Boston, Chicago, and Seattle, with more coming soon.

Working on NabeWise has broadened Hughes’ horizons, and not only geographically. It has given him the opportunity to explore neighborhoods — he’s fond of Greenpoint and Williamsburg in Brooklyn — while introducing him to the skills and attitudes he’ll need to succeed as an entrepreneur. As director of technology, it is his job to translate the ideas behind NabeWise — originally just a PowerPoint presentation — into a compelling and technically viable site. He is also responsible for everything from day-to-day maintenance to developing a long-term, sustainable technology strategy for the company.

“Taking computer science courses in tandem with this work has been critical,” he says. “What I’ve been learning about structuring knowledge and managing complexity is really useful to me as I think about what will work for NabeWise and what won’t.”

Equally important, Hughes is learning to be more deliberate in how he works with others. As NabeWise has scaled up, it has hired two Web developers whom Hughes oversees, and he meets online every evening with the rest of the NabeWise team in New York. They use a variety of collaborative tools so that the work stays on track, but, as Hughes says, “Communication is incredibly important. I’ve realized that you need to make a conscious effort not to work in isolation and to have a professional and personal relationship with your team.”

And since NabeWise, like most startups, is in a constant hunt for financing, Hughes has also learned a great deal about term sheets and the language of business valuation. And he has put in his time at real estate conferences, building relationships with agents and executives and exploring the possibility of using NabeWise as an information and marketing tool for their businesses.

Most of all, Hughes’ involvement with NabeWise has enabled him to find his professional neighborhood, a community inhabited by young entrepreneurs and programmers, where talent, experience, and new ideas are valued above all else. During the summer, he regularly attended gatherings for people involved in technology startups. “The point is to discover people with mutual interests and to let more people know about what you’ve been doing,” he says. “It’s exciting.”

Right now, Hughes is optimistic about the future of NabeWise. Regardless of what happens, though, Hughes is confident he has found his community and his future. “Being part of a startup,” he says, “is what I like doing.”
When he graduated from the Engineering School, Steve Huffman (CS ’05) watched a number of his classmates take their first jobs with one of the many government and defense contractors in Northern Virginia. He had other plans for using his computer science degree.

Along with his roommate and College of Arts & Sciences graduate Alexis Ohanian (Coll ’05), Huffman created the successful news aggregator site reddit.com in the summer after graduation. The site’s parent company, “Not a bug,” was purchased by Condé Nast Publications in 2006 and you can now find the reddit.com news-sharing icon on webpages for media outlets such as CNN and USA Today. The site, which allows users to share and comment on news stories, has become ground zero for Internet culture trends.

“When we launched the site, Alexis and I had 50 accounts each, to create the appearance that the site was more popular than it was,” Huffman recalls. “After a few months, I woke up one morning and saw comments from real people. It was exciting to see that the site was working on its own.”

The reddit community now has 8 million unique monthly visitors and has surpassed Digg to become the largest social news aggregator.

Following the sale of reddit.com and a subsequent consulting gig with Condé Nast, Huffman helped MIT engineering grad Adam Goldstein create a flight-booking website, hipmunk.com. The site received a rave review in TechCrunch and made national headlines with its launch in August 2010.

“The online travel industry hasn’t really innovated in five years,” Huffman says. “When you try to book flights, you can spend hours and visit multiple sites. We wanted to take the pain out of the process and make it an easier user experience.”

“We tried not to look at competitors,” he says. “We asked ourselves: In a perfect world, what would this site look like?”

The result is a straightforward site that allows users to easily compare color-coded flights in a grid.

Before Huffman’s career as a website entrepreneur took off, he was honing his programming chops in the Engineering School’s Department of Computer Science. He credits faculty members Dave Evans and Marty Humphrey, among others, with teaching him not only the theoretical background of computer science, but also how to apply that knowledge to solving real-world problems.

Huffman is pleased to hear that the Engineering School is working to enhance entrepreneurial opportunities for students.

“When I was at U.Va., there wasn’t much of an entrepreneurial vibe,” Huffman says. “It’s a mental thing. Students need to be told that they can have lucrative careers as entrepreneurs.”

As for advice to current students, Huffman isn’t an advocate for a traditional career path. “There is a whole world of things you can do. Starting a company doesn’t take much money at all. It’s mostly just time. As a college kid you’ve been living in poverty for four years; what’s another year or two?”

“If you managed to graduate from U.Va.’s Engineering School, you probably have the talent. So follow through on your idea and go build it.”

Steve Huffman’s early success allowed him to make a $25,000 gift to support the upcoming Rice Hall Information Technology Engineering Building.
Bill Scherer is flat out a genius in my book.

He’s a rock star. He has the ability to take super-complex ideas and make them easy and relevant, seemingly without effort. Add to that the fact that he is loyal, caring, committed and willing to get involved, and you have a person who can and does change lives. He certainly had a hand in changing mine.

I took a total of four courses with Bill during my undergraduate years. So deeply did each class impress me that I could give you the course names and numbers, but I won’t do that here. He was also my thesis advisor on a project that studied the economics of alternative energy providers for the city of Charlottesville.

In each of his classes and through the thesis experience, I learned how to think out of the box and how to apply systems design and analysis concepts to any design challenge.

He taught me how to widen my view to see all possible solution spaces — and once you are able to do that, the solutions become apparent. It’s worked well for me so far.

Bill helped me get my first internship at Bellcore and later encouraged me to attend Stanford, where I got a master’s degree in engineering economics systems. Later he was instrumental in opening doors for me to land a job with Signet Bank and was a help as I brainstormed my first Internet company, Advertising.com. I started that company in 1998 with my brother John, and we sold it in 2004 to Time Warner just as we were about to go public.

Before I began my second Internet company, I sponsored one of Bill’s Capstone groups. The topic of the year-long session was “how to develop a business idea and launch it.” I gave the class a number of different ideas to run with, they did the research, and I came to town every week to meet with them.

Eventually, in part out of that exercise, I developed my next company, TidalTV, an online TV venture that I launched right after the class ended.

I’ve used the concepts I learned in Bill’s classes in every professional venture in my career. It is so rare to study something and then apply those exact concepts you learned in your profession. Because I was lucky enough to have Bill Scherer as a professor, I find myself doing exactly that every day.

Scott A. Ferber (SE ’91) Chairman, TidalTV Inc.
Letitia Green brings real-world entrepreneurial experience to the classroom. The active venture capitalist is teaching the course “Entrepreneurship and Finance” as part of the Engineering Business Minor in the Department of Science, Technology, and Society.

It gives engineering students an opportunity to practice the skills they will need to take their ideas to the marketplace.

—Letitia Green

Green is co-founder/managing partner of the Virginia Active Angel Network LLC, a professionally managed and member-led group of accredited investors that provides funding and mentorship to early and seed-stage ventures.

She is also CEO of ECorp Management Associates Inc., with offices in Los Angeles and Charlottesville.

Her course teaches students how to develop an “elevator pitch,” a business plan and an investor presentation, as well as how to evaluate market opportunities, business concepts and investment potential of companies in the technology-venture space.

There are 33 students enrolled in the class, which was taught last semester for the first time. “I’m pleased to offer this class as part of the Engineering Business Minor,” says Green. “It gives engineering students an opportunity to practice the skills they will need to take their ideas to the marketplace. We give them opportunities to interact with entrepreneurs who have already overcome challenges to succeeding in the business world.”

A Look at Successful Women Entrepreneurs

J. McGrath Cohoon, assistant professor in the Department of Science, Technology and Society and senior research scientist at the National Center for Women and Information Technology, led the data analysis for the Ewing Marion Kauffman Foundation study on women entrepreneurs.

A survey of 549 company founders of successful businesses in high-growth industries explored the question: “Are Successful Women Entrepreneurs Different From Men?”

• More than 50% of all 549 respondents of both sexes cited these five reasons for becoming entrepreneurs: the desire to build wealth, the wish to capitalize on a business idea they had, the appeal of startup culture, a long-standing desire to own their own company, and lack of appeal of working for someone else.

• Women were much more likely than men to view protecting intellectual property as a key challenge, while men were more than twice as likely as women to mention family or financial pressure to maintain a steady, traditional job as a key challenge.

• At the time of starting their companies, entrepreneurs of both genders were, on average, in their early 40s; were married; and had one child living at home.

READ MORE: www.kauffman.org/uploadedFiles/successful_women_entrepreneurs_5-10.pdf
1940s
Albert H. Small (ChE ’46) received the 2009 National Medal of Arts and National Humanities Medal in a ceremony held in the East Room of the White House. Other recipients included Bob Dylan, Clint Eastwood, Elie Wiesel and Rita Moreno.

1960s
Winfred M. Phillips (Aero ’66, ’68) received a “lifetime of service in engineering” award from ASME for outstanding contributions to mechanical engineering and engineering education through service and leadership in engineering organizations. He is vice president for research, director and professor of mechanical engineering, and Don and Ruth Eckis Professor of Biomedical Engineering at the University of Florida at Gainesville. He has been a member of the SEAS Trustees since 2007.

1970s
John F. Eversole III (ME ’74) works in the Miami law firm of Mase Lara Eversole and was appointed for a second term as chairman of the Florida Bar Aviation Law certification committee for 2009–2010. He is board certified in aviation law and civil trial law in Florida and is a member of the Washington, D.C., bar association.

1980s
John P. Mugler III (ME ’80, BME ’88) received the 2009 “Inventor of the Year” award from the U.Va. Patent Foundation. The award recognizes inventors whose technology has proven to be of notable value to society. He and James Brookeman, both of whom are professors of radiology and biomedical engineering at U.Va., were honored for their groundbreaking work in magnetic resonance imaging techniques over the past two decades.

Mark Gogolewski (Engr Phys, Applied Math ’92) co-founded and served as chief financial officer and chief technology officer for Denali Software Inc. in Sunnyvale, Calif.

Denali is a world-leading provider of electronic design automation software and intellectual property (IP) tools. The company specializes in standards-based interface design and verification IP, with leading solutions for DRAM, FLASH, PCI Express and USB. Denali serves companies that build customized semiconductor chips, such as IBM, Qualcomm, Broadcom, Marvell, ST, Sony and Samsung. In June, Denali was acquired by Cadence Design Systems Inc. for $315 million.

Gogolewski credits the broad-based engineering education he received at U.Va. as one of the keys to his entrepreneurial success.

Ronald F. Cox (EE ’75, ’79) graduated from Pacific Lutheran Theological Seminary with a master’s degree of divinity. He is an ordained pastor serving at Christ Lutheran Church in Goleta, Calif. He retired from Northrop Grumman after 33 years in research and corporate management at Sperry, Honeywell, Litton and Northrop Grumman.

Roger M. Millar, Jr. (CE ’82) is director of land use and transportation policy for Smart Growth America, a coalition of national, state and local organizations working to improve how America’s communities grow.

Meredith H. Barclay (ChE ’88) and her husband, Albie, welcomed their third child and third son, Robert King, in July. The family resides in Atlanta.

Tien H. Chu (Aero ’89) is vice president and chief information officer of Nicklaus Companies, a privately held company involved in various products and services that mirror the high standards established in the career and life of Jack Nicklaus.

“U.Va. provides a great environment for receiving a well-rounded engineering education with an appreciation for business and project planning,” he says. “At U.Va. I was afforded the opportunity to gain an appreciation for the greater context of engineering beyond the raw skills in a particular domain.”

“I am always proud to work with faculty and students at U.Va. and to have opportunities to invest in U.Va. companies.”

—Gregory H. Olsen (MSE ’71), president of GHO Ventures LLC, entrepreneur-in-residence at Princeton University and third private citizen to travel to space.

Succeeding in the Software World

Alumni Connection
1990s

Richard Fonda (MSE ‘91) works at the Naval Research Laboratory within the Office of Naval Research.

Rita M. Barksdale (ME ‘93) is general manager at GE Appliances for Europe, the Middle East and Africa, with headquarters in Brussels, Belgium.

L. Roger Mason (Nucl ’92, ’94) is associate director of National Intelligence for Systems and Resource Analyses in the Obama Administration. He is helping to build the government-wide National Intelligence Program and Budget.

Robert C. Shields (SE ’95) and Meredith Davis Shields (Col ’96) welcomed their first child, a son, Carter Davis Shields, in June 2009.

Jill R. Bankston (CE ’96) and her husband, Troy, welcomed their second daughter, Kira Paige, in August 2009. The family resides in San Diego, where Jill and Troy are registered professional civil engineers working for the County of San Diego.

Sarah S. Blair (CE ’96) and her husband, Mark, welcomed their first child, Finley Ann, in May 2009. The family resides in Atlanta, where Sarah and Mark are architects.

Mark Gillespie (ME ’96) and his wife, Trixy, welcomed their second child, Caroline Emma, in June 2009. The family’s home is in Tampa, Fla.

Kristin S. Deason (CS ’98) received a doctoral degree in systems engineering, with concentration in environmental and energy management, from George Washington University in Washington, D.C., in May 2009.
Andrew R. Sugermeyer (EE ’98) and Evelyn Sugermeyer welcomed their first child, Sophie Isabella, in October 2009. The family resides in Alexandria, Va.


Steven W. Bremer (SE ’99, ’00) and his wife, Heather Johnston Bremer (Col ’00), welcomed their third child, Abigail Anne, in February. The family resides in New York City.

Erin O. Pesant (CE ’99) and Charles Pesant (Col ’99) welcomed their first child, George Charles, in March 2009. The family resides in Summit, N.J.

2000s

John D. Jordan (Aero ’00) and Michelle Jordan welcomed their first child and son, Matthew Endo, in December 2009. Mr. Jordan is a U.S. Marine captain who is earning his master of science degree at the Naval Postgraduate School in Monterey, Calif.

Timothy Kokan (Aero ’00) and Stephanie L. Kokan (CE ’00) welcomed their second child, Matthew David, in June 2009. Matthew joins a sister, Caroline, 2, and is the grandson of L. Glenn Kraige (Aero ’70, Engr Physics ’75) and the nephew of Daniel S. Kokan (CE ’97).

Megan S. Kamon (CE ’01) and Jacob John Kamon (CE ’01) celebrated the birth of a daughter, Abigail Elizabeth, in June 2009. The family resides in Fairfax, Va.

Michael A. Taylor (CE ’01) and Amy Ellis Taylor welcomed their first child, Caroline Grace, in November 2009. They reside in Arcata, Calif., where Mr. Taylor founded ATLAS Engineering, a civil and structural engineering consulting firm.

Zach Buckner (EE ’02, ’04) founded Relay Foods, which offers online ordering from more than 50 Central Virginia grocery stores, farms, bakeries and butchers, delivered to drop-off spots or to your doorstep. He is the director of product development at Elder Research Inc. in Charlottesville.

Erika M. Conly (Aero ’02) and her husband, Brian, welcomed their second child, Benjamin David Conly, in August 2009. The family lives in Kennett Square, Pa. She works as a project engineer for Alliant Techsystsems in Elkton, Md.

Jeffrey P. Marcello (ME ’02) and his wife, Christina, welcomed twins, Claire Juliet and Quinn Patrick, in March 2009. The family resides in Ridgefield, Conn.

C. Ariel Pinto (SIE ’02) was recently promoted to associate professor with tenure and graduate program director at Old Dominion University’s Department of Engineering Management and Systems Engineering. In 2009 he established the Emergent Risk Initiative at Old Dominion University, with a vision of creating next-generation knowledge in risk management and to prepare future researchers, educators, practitioners and entrepreneurs for the challenges of managing risk in the ever-changing global environment.

Robert Capon (ME ’80), who holds an M.B.A. from the Harvard Business School, is co-founder and former CEO of Adenosine Therapeutics LLC, a world leader in adenosine drug discovery and development.

Founded with the technology of Joel M. Linden, Timothy L. Macdonald and nine additional U.Va. researchers, the company has developed drug compounds with the potential to treat a variety of serious illnesses, including cardiac disease, asthma, diabetes, glaucoma and multiple myeloma. Adenosine Therapeutics was acquired by publicly traded global biotechnology company Clinical Data Inc. in August 2008.

Capon was also a co-founder of ViroLogic, a pioneer in antiviral drug resistance testing that went public as a NASDAQ firm in May 2000. He also co-founded HJC Software, the makers of Virex, the first commercial antivirus software for the Macintosh personal computer, which was sold to Microcom Inc. in 1990. He joined Charlottesville company MJ Systems in a turnaround effort in 1996 that led to a successful sale to Mobile Communications Corporation.

Capon is also an adjunct faculty member of the Darden School of Business, where he teaches “Transactions and Deal-Making in the Life Sciences.”

E. Faruk Kececi (ME ’03) is an assistant professor of mechanical engineering at Istanbul Technical University.

Nicholas A. Scribner (ME, Aero ’03) started his own engineering business, Continuum Engineering, in Chesapeake, Va.

Thomas L. Walls (SE ’03) and Sarah A. Walls (ME ’04) welcomed their first child, Thomas “Trip” Lambeth in March.

Lauren E. Pool (SE ’04) and Ryan K. Grammer (SE, Econ ’04) were married in May 2009 in Charlottesville. The reception was held in Ruckersville on the bride’s mother’s family farm. The couple currently resides in Durham, N.C. Lauren works in private equity at Parish Capital Advisors, and Ryan works in venture banking at Square 1 Bank.
Ryan M. Ewalt (SE '04) earned a master of public administration degree from the UNC Chapel Hill School of Government and works as a management consultant for Downes Associates Inc. He is an alumnus of the Class of 2002 Science and Technology Policy Internship Program.

Jared L. Kassebaum (ME '08) is a resources assessment engineer for enXco, a wind and solar energy company.

Evan T. Edwards (ME ‘02, SE ’04) (right), along with his twin brother, Eric — who is a Virginia Commonwealth University medical student — built their educations around developing a technology to help save the lives of people who suffer from severe allergic reactions. As allergy sufferers themselves, they saw problems with the current epinephrine self-injection technology. With their combined engineering and medical knowledge, they learned how to solve them.

Through their specialty pharmaceutical company, Intelliject Inc., they created a compact epinephrine auto-injector for the treatment of severe allergic reactions. The drug delivery device is about the size of a credit card and provides users with audible instructions for use and visual cues to aid with self-administration. The technology improves on the current market leader, which is a large syringe about the size of a highlighting marker.

The Edwards’ auto-injector was licensed in November 2009 by Sanofi-Aventis for $25 million, with additional development and commercial milestone payments of up to $205 million plus future royalties on sales. The Intelliject team is now working on receiving Food and Drug Administration approval for the drug/device.

Jason P. Manto (BME ’06) works for One Acre Fund in Rwanda, which operates with the goal of alleviating hunger in East Africa. He is an alumnus of the Class of 2003 Science and Technology Policy Internship Program.

Adam Sanders (CpE ’06) has been employed through General Motors, working at the NASA Johnson Space Center on Robonaut 2 (R2), a dexterous humanoid robot. He is the youngest member of his GM team and is lead engineer for the user interface, communication architecture and task programming language for R2. He is a GM representative at the NASA location for the project.

Chris Rehorn (EE ‘04, ’06) was featured in an article in ee-times.com for his part in the development of Agilent Technologies’ Infinium 90000-X series of 32-GHz analog oscilloscopes. He created a critical design required to power Agilent’s oscilloscopes to new heights.
Erwin P. Gianchandani (CS ’05, BME ’09) is completing an AAAS fellowship in the Directorate for Computer and Information Science and Engineering, Office of the Assistant Director, at the National Science Foundation. This is the same office where he worked as a Class of 2004 Science and Technology Policy Intern.

Anthony P. Colavito (SE ’07) and Laura Decker (Col ’07) were married in May at the U.Va. Chapel. The couple resides in Arlington, Va., where Tony is a systems engineer for a Federal Aviation Administration contractor performing concept development and safety analysis for the Next Generation Air Traffic Management system.

Alison Tramba (SE ’07) works for Bain & Company in Boston. She spent nine months on leave in 2009 to work for TechnoServe in Swaziland, focusing on operational support for a baby-vegetable farm and a strategic growth plan for the national cotton and textile industries. She is an alumna of the Class of 2005 Science and Technology Policy Internship Program.

David Clark (CE ’08) works for Pinnacle Engineering, a structural consulting firm located in Charlottesville. His assignments include the Rice Hall Information Technology Engineering Building. (uvamagazine.org/in_your_words/article/from_parking_lot_to_landmark)

Steven Policastro (MSE ’08) works at the Naval Research Laboratory in Baltimore.

Nitin Singh (MSE ’08) works at the Novelis R&D Center in Kingston, Canada.

Brooke L. Yamakoshi (CE ’06, SE ’08) works for the World Bank in Washington, D.C. She is an alumna of the Class of 2004 Science and Technology Policy Internship Program.

2010s

Naeem Ahmad (Aero, ME ’10) and Pratik Ghimire (Aero, ME ’10) were two of 71 people, representing 32 different countries, to become U.S. citizens in a July Fourth ceremony that took place on the steps of Thomas Jefferson’s Monticello.

Eric Pratsch (SE ’10) received the student leadership medal from the Society of American Military Engineers (SAME) for outstanding leadership and accomplishments in support of the SAME mission. He was a founding member and president of the SAME U.Va. Northern Virginia student chapter.

Join the Society.

The Thornton Society at the University of Virginia School of Engineering and Applied Science is a community of alumni, parents and friends who provide leadership support to the Annual Fund.

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To donate by phone, or for more information, please contact Truin Huntley at 434.924.3551.

2010s

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Furman W. Barton (CE ’54) of Williamsburg, Va., died in June. He joined the University of Virginia in 1970, serving as associate professor, professor and then chair of the Department of Civil Engineering. He also served for two years as chair of the Department of Systems Engineering. He was the author or co-author of more than 75 technical publications in the area of structural mechanics.

Marvin H. Hilton (CE ’59, ’66) of Charlottesville died in April. He was a retired lecturer in the Department of Civil and Environmental Engineering and a senior research scientist in the Virginia Transportation Research Council. He was president of the Senior Statesmen of Virginia for several years and served on the board of the Albemarle County Service Authority.

Joseph G. Howe, Jr. (CE ’52) of Charlottesville died in November 2009. He taught at the Engineering School and the School of Architecture from 1977 to 2009. He was former vice president and partner of Thacker Construction and former president of the Virginia branch of the Associated General Contractors of America. He served in the U.S. Army during World War II and had a long career in the construction industry.

Joseph A. “Pepe” Humphrey of Charlottesville died in March. He was the Neal and Nancy Wade Professor of Engineering and Applied Science and held joint appointments in the Department of Biology and the Department of Mechanical and Aerospace Engineering, which he chaired from 2000 through 2005. Prior to his arrival at U.Va., he held faculty positions at the University of California at Berkeley, the University of Arizona and Bucknell University.

Doris Kuhlmann-Wilsdorf of Charlottesville died in March. She joined the University of Virginia in 1963, becoming the first female full professor, and for more than 40 years held the title of professor of applied science. She was elected to the National Academy of Engineering and was a fellow of numerous professional societies. She started two companies, HiPerCon, for high-performance electrical contacts, and Kuhlmann-Wilsdorf Motors. Wilsdorf Hall was named after her and her late husband, Professor Heinz Wilsdorf.

Pradip N. Sheth of Charlottesville died in January. On the faculty of the Engineering School since 1985, he was an associate professor of mechanical and aerospace engineering and helped establish a master’s degree program in manufacturing systems engineering. The program was not only offered on Grounds, but also through the educational television system for real-time, interactive distance learning. He was an active participant in the University’s Rotating Machinery and Controls Consortium and the Kluge Rehabilitation Center.

To contribute to the Engineering School in honor of the individuals listed here, contact Truin Huntley, 434.924.3551, U.Va. Engineering Foundation, P.O. Box 400256, Charlottesville, VA 22904-4256.
1930s
John F.C. Glenn (ME '37, Law '40) of Richmond, Va., died in October 2009. During World War II, he served on the War Production Board and served in the American Field Service of the British Army in Burma. He had a private patent practice and argued before the U.S. Supreme Court, and he become chief patent counsel of Reynolds Metals Co.

1940s
Charles W. Ashby (EE '42) of Birmingham, Ala., died in October 2009. While a student at the University, he was a member of Theta Tau fraternity and the honorary fraternity Omicron Delta Kappa. He served in the U.S. Navy during World War II and founded an electrical equipment company, the Charles W. Ashby Co., in Birmingham.

John H. Hunter (CE '44) of Blacksburg, Va., died in May. He served in the U.S. Navy in Okinawa and Guam during World War II and later taught at Clemson University’s school of engineering and at Virginia Tech in 1960.

Edward A. Jenkins II (EE '46) of Fresno, Calif., died in February. He retired from Reedley High School as a math teacher after a 19-year high school teaching career. He began the Advanced Placement Program in calculus at the high school, was involved with Kings Canyon Education Association as a high school faculty representative and worked with the California Teachers Association. He directed plays and sponsored a drama club for more than 10 years.

Thomas P. Peyton III (Engr Undeclared '46) of Brookhaven, Miss., died in February. He served in the U.S. Marine Corps during World War II and the Korean War and was a member of the Reserves. He worked in the export business in Washington, D.C., Cuba and South America. Later, he worked for Standard Oil of California and was with Columbia Gas Transmission Company until he retired in 1987.

Lawrence F. Altaffer, Jr. (Engr Undeclared '47) of Warsaw, Va., died in January. He served in the U.S. Marines during World War II and the Korean War and later was a manager for Pet Dairy.

Paul H. Connair (EE '47) of Dayton, Ohio, and Pinehurst, N.C., died in September 2009. At the University, he played football and was a member of the Raven Society and Phi Gamma Delta fraternity, and he served in the U.S. Navy during World War II and the Korean War. He began his career as an electrical engineer for the U.S. Navy and Westinghouse, followed by a move to engineering sales for several manufacturing firms.

Arthur F. Wittstock (Engr Undeclared '47) of Grosse Pointe, Mich., died in February. At the University, he played varsity baseball for three years and was a member of the Phi Sigma Kappa fraternity. He served in the U.S. Navy during World War II. During his career in Michigan, he installed many of the slate roofs on churches in the Detroit area, started an electrical engineering company and worked in civil engineering.

Deward M. Martin (CE '49) of Holly Hill, Fla., died in July 2009. He served in the U.S. Navy and had a career in both the design and construction engineering industries.

1950s
Charles N. Jolliffe (Engr Undeclared '51) of Circleville, Ohio, died in December 2009. He served in the U.S. Navy during World War II and worked as an electrical engineer at E.I. Dupont de Nemours & Co., where he was senior research scientist.

Thierry N. Thys (Engr Undeclared '52) of Sacramento, Calif., died in August 2009. He served in the U.S. Air Force and later, with his brother, took over a struggling metal casting company in Berkeley, Calif., moved it to San Leandro, Calif., expanded it and renamed it Precision Founders Inc. He was also an aviator. In 1970 he made the world’s third-longest sailplane flight, a distance of 570 nautical miles. In 2002 he made the first self-launched sailplane flight from Point Barrow, Alaska, to Cape Horn.

George R. Laubscher (ChE '52) of Wayne, N.J., died in August 2009. He served in the U.S. Army during World War II and was awarded the European African Middle Eastern Service Medal, among other honors. He was a chemical engineer for the American Cyanamid Corp. for 35 years.

Julian H. Dancy (ME '55) of Poughkeepsie, N.Y., died in May 2009. He was a member of Tau Beta Pi and the Glee Club. He served in the U.S. Army Chemical Corps and then spent his 38-year career in the oil industry with Texaco Inc. He was a life member of the National Society of Professional Engineers and the New York Society of Professional Engineers. He was awarded several U.S. patents and contributed to technical publications, including the chapter on lubricants in Marks’ Standard Handbook for Mechanical Engineers, 10th Edition.

Raymond L. deKozan (EE ’57), an engineer-turned businessman who invented the MetroCard, died in October in San Diego, Calif.

Norman W. Skinner (EE '55) of Shorewood, Minn., died in January. He served in the U.S. Army during World War II and participated in major battles, including D-Day, the Battle of the Bulge and the crossing of the Rhine. At the University, he was a member of Tau Beta Pi, Phi Kappa Phi and Phi Eta Sigma honor societies. An early developer of the computer industry, he worked as a research scientist at NASA, an executive at Burroughs and a senior group vice president for Control Data, managing plants in the U.S., Canada, Europe and Israel. He was a member of the Institute of Electrical and Electronics Engineers, the National Academy of Science and many other professional organizations.

Donald E. Franklin (EE ’57) of Austin, Texas, died in September 2009. He was an electrical engineer and worked for the U.S. Department of Defense in mine detection. He taught engineering at several universities and was a lifetime member of the Institute of Electrical and Electronics Engineers.
James P. Burke (Aero ’58) of Dayton, Ohio, died in March. At the University, he was a member of the Phi Sigma Kappa fraternity. He served in the U.S. Air Force and was an engineer at Wright-Patterson Air Force Base for 23 years. He received many letters of commendation for his work on automatic landing systems and drones.

Thomas E. Sheets (Engr Undeclared ’58) of Charlottesville died in January. He served in the U.S. Navy and was a retired electrical engineer. He had a lifelong love of flying and was a private pilot.

Robert F. Roudabush (CE ’59) of Midlothian, Va., died in October 2009. He served in the U.S. Army during the Korean War and later worked for the federal government.

Ronald Peter Melnik (EE ’58, Darden ’62) of Spring Lake, N.J., died in August 2009. At the University, he played football. He was drafted by the New York Giants but instead decided to attend the Colgate Darden Graduate School of Business Administration, where, upon graduation, he joined the faculty. He served in the U.S. Army and worked for 40 years on Wall Street.

1960s

Robert L. Heilig (CE ’61) of Rockledge, Fla., died in January. He served in the U.S. Army during the Korean War. For 25 years, he worked in the aerospace industry on the Saturn, Apollo, Space Shuttle and Inertial Upper Stage programs with the Boeing Company.

Edward L. Derrenbacker (CE ’62) of Midlothian, Va., died in August 2009. He worked as a chemical engineer with Merck & Co. and retired from Mallinckrodt.

Thomas S. Lewis (EE ’64, ’67) of Richmond, Va., died in October 2009. After serving in the U.S. Army, he was professor and dean of engineering at the University of Hartford for 15 years. Later he was executive vice president of the engineering department for the Hartford Steam Boiler Inspection and Insurance Co.

Hugh K. Wood (Col ’66, CE ’68) of Norfolk, Va., died in May. At the University, he was a member of Beta Theta Pi fraternity. As an engineering student, he worked on the construction of the Chesapeake Bay Bridge Tunnel. He was employed as an engineer constructing the second span of the Chesapeake Bay Bridge from Annapolis to the Eastern Shore. He joined the Naval Facilities Engineering Command in 1985, from which he retired in January 2010. He served as president of the Norfolk Branch of the American Society of Engineers.

Richard VanRyper (ME ’69) of Wilmington, Del., died in October 2009. At the University, he was a member of Pi Kappa Phi fraternity. He was an engineer with DuPont for 40 years and a member of the American Society of Mechanical Engineers.

1970s

Wilbur J. Dobson (EE ’70) of Greer, S.C., died in January. He served in the U.S. Navy for nine years, including two tours in Vietnam. He worked for Michelin North America for 25 years, where he held many positions in South Carolina and France.

John C. “Jay” Jennison III (Aero ’71) of St. Augustine, Fla., died in July. At the University, he was a member of the golf team and later competed in the U.S. Amateur, the British Amateur, the U.S. Mid-Amateur and numerous other golf events. He was the club champion at six different clubs during his lifetime. He was a member of the Florida Bar and served in the Florida National Guard. He had a business career in Washington, D.C., New York City and south Florida.

Michael H. Williams III (Engr Sci ’71) of Midlothian, Va., died in July 2009. He began his career at Virginia Power and retired from Philip Morris in 2000, after 21 years of service as a director of information services. After his retirement, he became involved in helping others through the study of movement education utilizing the Feldenkrais Method and yoga.

1980s

David C. Mason (CS ’85) of Dallas died in November 2009. He worked as a customer support engineer for Genband of Plano, Texas, and at Bridgewater System of Ontario, Canada, as a professional services consultant.

Albert Leonard Deal III (CS ’88) of Lexington, Va., died in August 2009. He was a member of the Virginia Military Institute faculty and taught as a visiting lecturer at Mary Baldwin College in the VMI evening college. He received the VMI Distinguished Teaching Award in 1984 and 1995 and served on 13 major faculty and staff committees at various times during his career. At his retirement, he received the Virginia Military Institute Achievement Medal.

1990s

Lawrence D. Priest (ME ’90) of Virginia Beach died in December 2009. He served in the U.S. Navy and later worked as a nuclear engineer at the Norfolk Naval Shipyard for 19 years. He was adjunct faculty for Tidewater Community College.
Reflections:
On Fostering A Robust Innovation Ecosystem

BY W. MARK CROWELL

I am inspired by the vision and energy that abounds at the University of Virginia. From the Office of the President to the Vice President for Research to the deans to the outstanding faculty, there is recognition that transforming the way we manage knowledge transfer is key to the University’s future as a preeminent research institution.

As we move forward, it will be essential to explore and strengthen all components of knowledge transfer to create a more robust innovation ecosystem. We must work to knock down the silos between disciplines and foster increased collaboration with researchers across Grounds and throughout the world. We also must connect the front end of our research engine with market and societal needs to better engage prospective corporate partners and to fulfill our commitment to ensuring that U.Va. science serves humanity.

In practical terms, I will encourage growth of our innovation ecosystem by facilitating partnerships through seminars, conferences and other gatherings of the University research community. There will be a focused effort to connect researchers with governmental organizations, foundations, private companies — both large and small — and the investment community. We will help match researchers to entrepreneurial talent and to legal, financial and capital resources. These connections, in turn, will enhance U.Va.’s intellectual landscape.

I also want to create an online innovation partnership portal to serve all of the University’s researchers. This tool will allow corporations and prospective collaborators to easily search through the depth and breadth of our innovation capacity.

We will create more meaningful partnerships through these activities — which in turn will lead to what I call entrepreneurial “churn.” Venture capitalists and other participants in our innovation ecosystem will see and hear of the churn, and they will come. I have seen that reaction in Research Triangle Park and in San Diego, my prior places of employment, and I expect to see it more and more in Charlottesville.

The School of Engineering and Applied Science obviously is very important to the University’s knowledge transfer initiative. By their nature, engineers are oriented to, and motivated by, the real world. They are interested in creating things that work and in developing products that solve societal problems.

“ When we strengthen these cross-disciplinary connections and create new avenues for market-driven translational research, we will make U.Va. an even more attractive partner for corporations interested in innovation and knowledge transfer.”

Going forward, we will increasingly see engineers working with other engineers across disciplines and engineers working with other scientists within and outside the University. Such multidisciplinary collaborations define the top innovation institutions, and we will build on and expand the collaborative spirit that already defines the U.Va. research community.

Involving students in innovation initiatives will be important as well, shaping both the way we teach them and the way we enhance access to them. In my experience working with corporations, I have found that having access to the best and brightest students is a primary motivating factor for corporate engagement with the university. We will maximize student exposure to corporations and related entities through research and career fairs and will invite corporate R&D professionals to serve as guest instructors and mentors to students.

When we strengthen these cross-disciplinary connections and create new avenues for market-driven translational research, we will make U.Va. an even more attractive partner for corporations interested in innovation and knowledge transfer.

W. Mark Crowell is the executive director and associate vice president for innovation partnerships and commercialization in the U.Va. Office of the Vice President for Research. This is a newly created position in the office. Before coming to U.Va., Mr. Crowell was vice president for business development at the Scripps Research Institute.

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Involving students in innovation initiatives will be important as well, shaping both the way we teach them and the way we enhance access to them. In my experience working with corporations, I have found that having access to the best and brightest students is a primary motivating factor for corporate engagement with the university. We will maximize student exposure to corporations and related entities through research and career fairs and will invite corporate R&D professionals to serve as guest instructors and mentors to students.

When we strengthen these cross-disciplinary connections and create new avenues for market-driven translational research, we will make U.Va. an even more attractive partner for corporations interested in innovation and knowledge transfer.

W. Mark Crowell is the executive director and associate vice president for innovation partnerships and commercialization in the U.Va. Office of the Vice President for Research. This is a newly created position in the office. Before coming to U.Va., Mr. Crowell was vice president for business development at the Scripps Research Institute.
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“Every discovery which multiplies the subsistence of man must be a matter of joy to every friend of humanity.”
— Thomas Jefferson, 1787

Discover all of the many ways you can share in our joy.

The continuing commitment of our alumni and friends has helped establish a legacy of excellence and accomplishment at the U.Va. School of Engineering and Applied Science. Thanks for all you have done, both on and off Grounds, to power our quest for discovery. We hope you will consider making a gift to the Engineering School this year. That would be joyous, indeed.