

# Rowan Magazine

FOR ALUMNI & FRIENDS OF ROWAN UNIVERSITY

WINTER 2015



Dear Friends,

Just a few days before the magazine deadline, we received tremendous news: the Henry M. Rowan Family Foundation committed \$15 million to endow the College of Engineering. With such a significant story to tell, we revised this issue to add coverage of this generous gift that benefits our engineering program and the entire Rowan community.

Please see the article that begins on p. 18 for details. The reverse side of this cover and p. 2 share some greetings from alumni and friends that we received upon the announcement. This is another proud moment for everyone associated with the University.

I trust you will join me in committing to honor the Rowans' great confidence in us and their transformative investment in education.

Best regards,

Ali A. Houshmand  
*President*

*PS: The attached snapshot is from Mr. Rowan's visit to campus last fall: Mr. Rowan with (from left) professors Eric Constans, T.R. Chandrupatla, myself, chemical engineering major Gina Tierno '15 and Dean Tony Lowman.*

# Thank you, Mr. Rowan!

When the University announced the most recent Rowan Family Foundation gift, alumni and friends sent notes of appreciation. Here are a few (see more on p. 2):

What a tremendous endowment to Rowan University—thank you, Rowan family. The contributions the Rowan family continues to make further enhance the reputation of the University and enhance our pride.

*Virginia Nelson '78  
Emily Nelson '11*

Mr. Rowan, your generosity is overwhelming. Thank you for all you have done and continue to do for Rowan University—my wonderful alma mater.

*Robert P. Sobol '82*

Thank you to the Rowan Family Foundation for its donation of \$15 million. Rowan is a fine institution and has tremendous faculty and staff. Donations like those mentioned allow Rowan to continue its reputation of excellence.

*Melissa Fletcher '14*

I simply wanted to let you know that your philanthropic endeavors are inspirational! Rowan has transformed and its continuous involvement is a testament to the commitment and generosity of your family.

*Suzanne Schwester Sloan '04*

I am continually amazed, thrilled and proud of the growth and development of Rowan University.

I have been talking with friends of college-age kids, regaling them with my stories of having four internships while at Glassboro State. Under the guidance of professors Fulginiti, Bagin and Resnick, communications students were pushed to get experience and the faculty and staff were connected to professionals who could guide us and hire us. This has served me well all these years later and I'm passing the

"real life" values to my own children.

Much success to the school and many thanks to Mr. Rowan!

*Paula Rosica DiLeo '85*

Thank you so much to Henry Rowan's family. I'm so proud to see how much the University has been changing. Every time I drive by the school, I see something new. Sometimes, I find myself lost because of the new buildings and even the new streets. May God bless the Rowan family with good health and happiness.

*Thuy (Cindy) Kwan '98, M'01*

The Henry M. Rowan Family Foundation and the Rowan family have changed the course of education at Rowan University and in the state of New Jersey, as well as regionally, nationally and internationally.

Our growth and development into a research institution over the past 20+ years begins with the generosity of the initial gift and the ongoing support of the Rowan family.

Thank you!

*Carol N. Welsh*

Great news! Mr. Rowan comes through, yet again.

The University is making great strides with financial boosts like this. Keep up the good work.

*Terry C. Van Zoeren '79, M'86*

I am writing to thank Henry Rowan and his family for their continued generosity to Rowan University.

I work as a teacher at the secondary level here in Gloucester County. As a community member and alumnus, I am proud of the contributions Rowan University makes to southern New Jersey and the Philadelphia region.

I am excited about the opportunity

provided to our young people. My daughter participated in the AWE (Attracting Women to Engineering) program during the summer of 2014 and I have had students participate in the program.

Rowan University has been transformed because of the kindness of the Rowan family.

*Dolores "Lori" M. Nogrades  
Bathurst '95*

As a graduate of Glassboro State College, I am thrilled that my alma mater has become a first class university. Thank you, Mr. Rowan.

*Judith A. Gauntt Scull '75*

I would very much like to join in thanking the Rowan family for their continued support in engineering education as well as their dedication to the advancement of the profession of engineering. Their generosity renews my commitment to the same.

*John Kerchner '02*

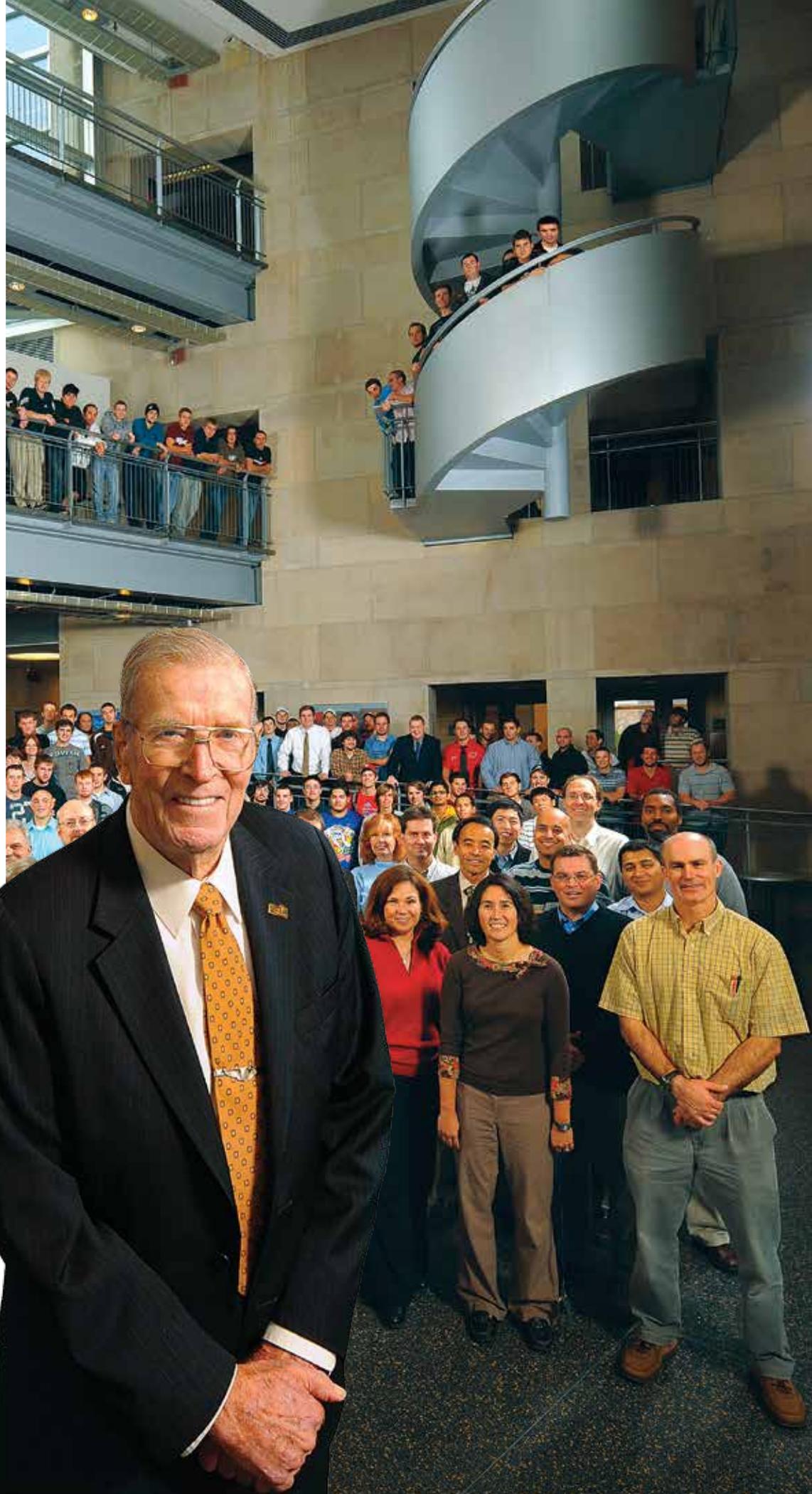
Thank you, again, for all that you have done for education in Glassboro, South Jersey, New Jersey and the U.S.

It is an honor to be here during the time you have made all your gifts. I have seen the results to this point and can only imagine what will occur going forward!

*James A. Henderson, Jr.*

Congratulations. As the first woman Chair of the Board of Trustees at what was then Glassboro State College, I continue to be thrilled with all the fine achievements at Rowan University since New Jersey established boards of trustees at state colleges. This contribution is well deserved. Keep up the good work.

*Ann B. Ward*



*Mr. Rowan in 2009,  
with engineering  
faculty and students in  
Henry M. Rowan Hall.*

*ESTABLISHED TO*  
**EXCEL**  
*ENDOWED TO*  
**HONOR**

Another historic gift  
ensures exceptional  
engineering education  
and research at the  
Henry M. Rowan  
College of Engineering

BY PATRICIA QUIGLEY '78, M'03



**THEY WEREN'T BORN YET** when Henry Rowan and his late wife, Betty, donated \$100 million to their school in 1992—the vast majority of students who are studying thermodynamics in the College of Engineering building, conducting virtual reality research at the South Jersey Technology Park or interning in any number of industry offices or government labs throughout New Jersey and beyond.

But they are here now, 1,100 strong, and they are about to benefit even more from the generosity of the South Jersey industrialist and his family. In December, the Henry M. Rowan Family Foundation committed \$15 million to establish an endowment at the University that bears the Rowan name, dedicating the contribution exclusively to the college that now, too, will carry that name.

### Second largest gift, second named college

The gift is the second largest in the University's history, after the original Rowan gift. The Henry M. Rowan College of Engineering becomes just the second named college at Rowan, joining the William G. Rohrer College of Business, established in 2005 following a \$10 million pledge from the William G. Rohrer Charitable Foundation.

"Henry Rowan and his family have impacted education in New Jersey for generations to come," said Dr. Ali Houshmand,

"We are so pleased that through this gift, the name of Henry M. Rowan will be forever associated with excellence in engineering education."

—VIRGINIA ROWAN SMITH,  
vice president of Henry M. Rowan  
Family Foundation and Rowan University  
Board of Trustees member



*Selected highlights of Rowan engineering education history since the first Rowan gift, announced on campus July 6, 1992 (above).*

## THE ROWANS' IMPACT ON ENGINEERING EDUCATION

**1992**

**Henry and Betty Rowan pledge \$100 million to Glassboro State College.**

College renamed Rowan College of New Jersey.

**1993**

Research and development of engineering program begins with Dr. Zenaida Otero Keil, civil engineer and math professor, leading planning.

**1994**

Dr. James Tracey named founding dean of engineering.

Board of Trustees approves plan to include bachelor of science degree programs and a master of science in engineering degree.

**1995**

**Engineering program launches.**

Architects begin designing new engineering building to be named Henry M. Rowan Hall.

Founding faculty appointed to chair programs: T.R. Chandrupatla (mechanical), Ralph Dusseau (civil), John Schmalzel (electrical) and C. Stewart Slater (chemical).

Special topic courses begin for master of science in engineering degree.



LEFT: Visiting the mechanical engineering lab in 2009, Mr. Rowan learned about students' alternative energy research.

BELOW: At Commencement 2013, Mr. Rowan and Board of Trustees Chairman Linda Rohrer.



BELOW: In Rowan Hall, Dean Tracey (center) and students from the first graduating class hosted Mr. Rowan at the 2010 celebration of the college's first decade.



president of Rowan University. "The first Rowan gift enabled us, among other initiatives, to establish the College of Engineering. This new endowment enables us to enhance an already-strong program, to increase access into the high-demand college, to grow our research opportunities and to offer more scholarships to our students. It will support critical initiatives such as our new engineering Ph.D. program and the Henry Rowan Globalization Fellowship Program that funds study and work abroad.

"As we work to carry on the legacy of Mr. Rowan, we can think of no more appropriate and permanent tribute than a College of Engineering that bears his name and celebrates the lasting benefit his generosity continues to have on engineering education," he added.

## Two decades, many changes

When Henry and Betty Rowan donated that \$100 million to then-Glassboro State College a little more than two decades ago, they made just one major request of the school: improve engineering education.

The institution did just that, introducing an innovative approach to engineering education that included, as a hallmark, eight semesters of engineering clinics. Those clinics, which are twice as many as those offered at most other colleges, propel students into hands-on work from first semester freshman year through graduation. The college also is noted for its multidisciplinary collaborations and for providing real-life experiences during which students work with clients, often serving as those organizations' de facto R&D arm.

From the start, the college also offered small class sizes, opportunities to conduct research starting at the undergraduate level and state-of-the-art equipment that students in other schools wouldn't normally get to use until graduate school.

"My father and our family have been pleased by all that the College of Engineering has accomplished in such a short time. Rowan University has indeed transformed engineering education. We see the results on campus in the research our students and professors undertake. We also see the

### 1996

**102 students enroll as first class.**

Private donors and the Rowan University Foundation pledge more than \$1 million to provide freshman engineering students with full, four-year tuition scholarships.

Ground is broken for the College of Engineering's Henry M. Rowan Hall.

### 1997

**University status achieved.**



### 1998

Engineering students win top awards for research, academic merit and service.

**\$28-million Henry M. Rowan Hall opens.**

College of Engineering and Camden County College receive a \$100,000 NSF grant to develop a manufacturing partnership.



results in the partnerships with well-respected corporations and with the increased funding that government organizations such as the National Science Foundation and National Institutes of Health award the College,” said Virginia Rowan Smith, vice president of the Henry M. Rowan Family Foundation.

“While the College of Engineering has continued to grow in scope and in prestige, it still has many opportunities not only to meet the shifting demands of students, but also those of business and government to educate our future engineers, inventors and entrepreneurs,” she added. “This endowment will provide essential resources to ensure that Rowan University prepares competitive students who will excel



“The engineering program has proven exceptional, surpassing what we had hoped for. There is a need to expand the college, to open the doors to more students and to help those students pay for their education. We believe this program can make an even bigger difference in engineering education, in business and in the economy.”

—VIRGINIA ROWAN SMITH

in their careers and make contributions to our world.”

The Rowan endowment will support some of the University’s most critical goals, what President Houshmand and others call the “four pillars”—access, affordability, quality and serving as a driver of the regional economy.

The administration expects to use the gift as it doubles enrollment at the College of Engineering in the near future (sidebar, p. 25) to fund more scholarships, to build on existing curricular offerings and to fuel the research and innovation that is increasingly spurring patents, product commercialization and new businesses on (and from) the campus.

Perhaps no one is more excited by the latest gift than Dr. Anthony Lowman, College of Engineering dean. At the college helm for just two years, the multiple patent holder and long-time educator was attracted to the University because of its vision for growth and its commitment to build an innovative engineering program.

During the last two years, the college has added 11 faculty positions. This fall, it welcomed a record 375 first-year students and introduced, among other programs, a department of biomedical engineering and a Ph.D. program (sidebar, p. 25).

#### 1999

Engineering students selected to conduct experiments aboard NASA’s KC-135 at Johnson Space Center in Houston.

Students work with New Jersey Department of Transportation to help build the state’s first hydrogen fuel cell electric car.

Delaware River and Bay Authority provides \$100,000 to partially fund an endowed chair in civil engineering.

#### 2000

**College of Engineering graduates its inaugural class and Mr. Rowan delivers Commencement address.**

Delaware River Port Authority awards engineering a \$1-million, four-year contract to determine the forces of natural elements on area bridges.

Founding Dean Tracey retires and Dr. Dianne Dorland becomes second dean.



#### 2001

Rowan awarded \$6-million state grant to launch South Jersey Technology Park.

ABET accreditation awarded.

#### 2002

Air Force funds \$375,000 project for engineering study in Alaska.

Engineering Clinic Affiliates include PSEG Nuclear LLC, Johnson Matthey Inc., Naval Surface Warfare Center, PTC Value Recovery and Campbell Soup Supply Co. LLC.



# Rowan.

The man behind the \$15 million endowment to the College of Engineering at Rowan University is an engineer himself, and he has a long and generous history with the institution.

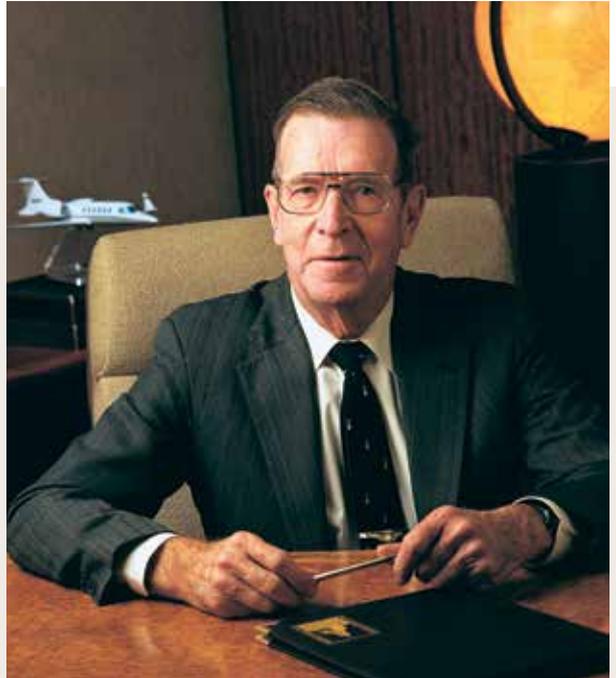
Henry Rowan and his late wife, Betty, donated \$100 million to then-Glassboro State College in 1992. What had been the largest gift to date to a public institution came with just one caveat from the Burlington County industrialist and philanthropist: improve engineering education.

Henry Rowan had no tie to the college; neither he nor his wife—his childhood sweetheart from his hometown of Ridgewood—attended the school.

Indeed, Mr. Rowan graduated from the Massachusetts Institute of Technology with an electrical engineering degree after a break in his education to serve with the Army Air Corps during World War II.

But he wanted to improve engineering education, and he wanted to do it locally, at a school that could not only use the funding but also was prepared to become a change agent, at a place where such a contribution would no doubt make a difference.

Glassboro State College was just 45 minutes or so south of where Mr. Rowan began his business. He started manufacturing induction melting furnaces in his backyard in Ewing Township, Burlington County, in 1953, and his



*In his Inductotherm office in Rancocas, Mr. Rowan posed for the cover of this magazine in 1997.*

Inductotherm Industries eventually would grow to have a global presence.

Five years after he made the transformational gift, Mr. Rowan said, “I was intrigued with a small college in South Jersey...because I knew it (the gift) could make a difference.”

And 20 years after he made the gift, he said, “Education is still the single most important means of changing a person’s life. It is what made the difference for me, and it’s critical that our investment supports superior education for as many students as possible. ...It’s been a very successful and enjoyable venture with the University. The progress has exceeded my expectations.”

*Mr. Rowan took a virtual test drive in a van equipped for the College’s Engineers on Wheels Program.*

## 2003

ExxonMobil, the NSF and U.S. DOE award a \$500,000 grant to use virtual reality and artificial intelligence to inspect and research ways to protect the nation’s gas pipelines.

Professor Kauser Jahan develops AWE (Attracting Women to Engineering) for middle school girls.

Student and faculty teams begin serving in developing countries as part of Engineers Without Borders-USA.

## 2004

*U.S. News & World Report* ranks College of Engineering 21st in nation among non-doctoral institutions.

Mechanical engineering graduate Gino Banco wins Fulbright award to study in Germany.

## 2005

**Rowan team works with Childrens Hospital of Philadelphia to research and build better child-size crash test dummies.**

NIH funds \$1.1-million study to determine early Alzheimer’s diagnosis.

Engineering collaborates with College of Education on Engineering Clinics for Teachers, supported by a three-year, \$326,000 Edison Venture Fund grant.



## 2006

New Jersey Technology Council honors Rowan University’s drive to lead in technology education.

Student and faculty teams continue volunteer work in New Orleans begun after Hurricane Katrina, including rebuilding schools.

RIGHT: Mr. Rowan obliged mechanical engineering major Eric Thompson's request to autograph his senior project last year.

BELOW: The Rowan family celebrated Commencement 2005 on campus as Mr. Rowan's grandson, Manning, earned his mechanical engineering degree. From left, Mr. Rowan, Mrs. Lee Rowan, Manning (Jamie) Smith, Virginia Rowan Smith, Manning Smith and Rowan Smith.



## Impact of gift

The latest Rowan gift will open more avenues for engineering education, research and innovation as the college prepares the future engineers, entrepreneurs and inventors who will address the needs of tomorrow's society.

"The Rowan family's initial gift allowed us to develop an outstanding engineering school that is a leader in undergraduate education. This latest gift enables us to move forward on our path to become a comprehensive College of Engineering that's a leader in undergraduate

and graduate education as well as an innovative research college focused on designing solutions for real-world problems," said Lowman, who was finishing his B.S. in chemical engineering at the University of Virginia when the Rowans made the initial gift. "This endowment will enable us to further develop programs demanded by students and industry in an increasingly more technology-dependent society."

Catherine Ni 'oo is one, among hundreds of alumni, who knows what a Rowan engineering degree means. A member of the first class, she received a full scholarship.

Today, she works for Lockheed Martin as the senior program manager of International Apache® Sensor Programs.

"I could have enrolled in a number of engineering programs," she said. "I took a chance on a brand-new college and was excited and nervous about being (among) the first Rowan engineering students. I knew I was getting a good education. I understand now just how superior it was. Yes, it ensured I graduated with exceptional technical skills, but it also provided me with extensive experience in collaborating on multidisciplinary projects while developing excellent communication skills. Rowan engineering didn't just prepare me to be an engineer, it also prepared me to be a technology and business leader. When

### 2007

Students and faculty study air quality inside and outside school buses for state of New Jersey.

Engineering faculty and students mentor Camden middle schoolers to introduce them to basic design and engineering concepts.

### 2008

*U.S. News & World Report* ranks Rowan engineering 12th in nation.

Martinson Family Foundation donates \$420,000 to establish the Engineers on Wheels program, bringing engineering concepts to K-12 students.

**Jones Innovation Center at South Jersey Technology Park opens to give entrepreneurs and local businesses opportunities to develop ideas and products.**



### 2009

*U.S. News & World Report* ranks Rowan 15th in nation, three programs in top 10.

Student David Lester leads Rowan-sponsored team to win first place and best in show at international Walt Disney design competition.

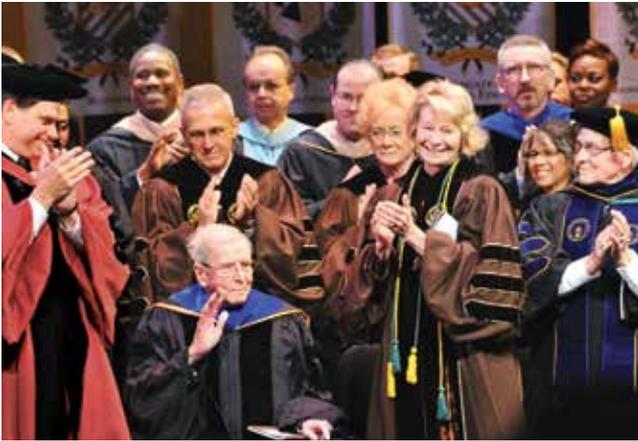
### 2010

*U.S. News* ranks chemical engineering second in nation.

PSEG supports K-12 education with programs that include Engineering Clinics for Teachers.



**Engineering Programs**



*Acknowledged during Commencement, Mr. Rowan greeted the audience gathered to celebrate the 2014 engineering graduates.*

I heard about the new endowment, I realized that I wasn't just part of the Class of 2000, but I was part of a legacy that just made a huge leap into the next phase of greatness, all because of the Rowans and their passion for developing future generations."

R.J. Tallarida Jr., associate vice president for University Advancement and executive director of the Rowan University Foundation, echoed Ni's sentiments while acknowledging the Rowan family as among the most generous philanthropists in the nation. Tallarida noted that Mr. Rowan's vision and leadership in philanthropy inspired countless others to contribute to the University. Since July 2011, when Houshmand became president and since the acquisition of two medical schools, he and the University Advancement staff raised more than \$38 million in new gifts and pledges, including this recent Rowan Family Foundation pledge of \$15 million.

As contributions from the Rowan family come full circle, they promise to impact an important part of the University and make a difference for thousands. "We are grateful that Mr. Rowan and his family are so deeply invested in securing the future of engineering education at the University and in the region," Tallarida said. ■

# Progress

**The \$15 million endowment for the Rowan University College of Engineering from the Henry M. Rowan Family Foundation comes during a period of remarkable growth in the program.**

- The college is a leader in research at Rowan University, which the state of New Jersey in 2013 designated just the third public research institution. Engineering conducts work for and receives funding from such entities as the National Science Foundation, National Institutes of Health and global defense giant Lockheed Martin.
- In the fall, Rowan welcomed its first cohort in the new department of biomedical engineering. That department joined the four existing programs: chemical, civil and environmental, electrical and computer, and mechanical engineering.
- In December, the college received final approval for its Ph.D. program in engineering. Thanks to a \$300,000 contribution in 2013 from the Henry M. Rowan Family Foundation to establish the Henry M. Rowan Engineering Ph.D. Fellowship Program, the college is able to award the initial group of Ph.D. fellows stipends and tuition support.
- With \$100,000 from the Henry M. Rowan Family Foundation, the college initiated the Henry M. Rowan Engineering Globalization Fellowship Program for Undergraduates, which provides students with educational and professional opportunities abroad.
- In the spring, the college officially will break ground for a second building, funded in large part by the New Jersey Building Our Future Bond Act. The facility, which will enable the high-demand program to double its enrollment to 2,000 students, is expected to open in 2017.



## 2011

AT&T and U.S. Economic Development Administration grants fund Cave Automatic Virtual Environment (CAVE) to support virtual reality research.  
NSF funds research to bridge engineering and music disciplines as a new model for general education curriculum.

## 2012

Engineering and business students collaborate with Cooper University Hospital on a mobile health clinic.  
Dr. Anthony Lowman becomes the third dean of the College.

## 2013

**Rowan earns status as a comprehensive public research university.**

Gov. Christie and Sen. Sweeney join Mr. Rowan at ceremonial groundbreaking for \$76M building to double engineering instruction and research space.  
Edison Ventures supports K-12 education through the College of Engineering with \$300,000 for online outreach.  
Rowan Family Foundation pledges gifts to establish the Henry M. Rowan Engineering Ph.D. Fellowship Program and Henry M. Rowan Engineering Globalization Fellowship Program for Undergraduates.

## 2014

**Henry M. Rowan College of Engineering endowed.**

Lockheed Martin and Rowan University form partnership for radar research.  
Engineering faculty Stephanie Farrell and Kauser Jahan earn Fulbright awards.  
Biomedical engineering program begins.  
Engineering welcomes largest freshman class.