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The Batten College of Engineering and Technology • Old Dominion University

ILLUMINATOR

Volume 5, Issue 3

FORWARD
FOCUSED

KENNETH FRIDLEY NAMED DEAN OF BATTEN COLLEGE

DEAN'S NOTES

NEW BEGINNINGS

This academic year we mark a new beginning for the Batten College of Engineering and Technology. The department chairs and I have already begun working on a forward-focused strategic mission to identify our core values and rescript our objectives for today's ever-changing educational environment.

In this role, we acknowledge our success to the vision and dedication of the many faculty, staff, students, benefactors, and other supporters who created the foundation on which we look to build on today. As we look to the future and envision all we can be, including all our future students can be, we recognize and respect that we stand on the shoulders of the many giants who went before us.

As part of a diverse, comprehensive, minority and military-serving university, the Batten College is a unique institution. Our strategic mission's core values embrace our uniqueness and our geographic location here in Hampton Roads.

We continue to be committed to the success of our students, the support of our faculty and staff, and to the many alumni who have come through the College of Engineering.

I look forward to an exciting future at the Batten College.

Dean Kenneth Fridley, Ph.D.
Batten College of Engineering & Technology

Cover: University photographer, Chuck Thomas, greets Dean Kenneth Fridley in the studio.

The **ILLUMINATOR** is a publication of the Batten College of Engineering & Technology

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INSIDE NEWS

SIMONE LEIGHTON (pronounced Si-mo-nuh) is the new executive assistant to Dean Fridley. As the daughter of a foreign service diplomat, Leighton spent a significant portion of her life living overseas – including Austria, the Philippines, Tunisia, Syria, Romania, Honduras and Germany. Leighton has a wide range of experience ranging from embassy work, collaborating with EVMS students as a standard patient and working as a virtual receptionist. She enjoys fashion and various arts and crafts including metalsmithing and sewing. Leighton is also a Monarch and will graduate with her bachelor's degree in psychology in December.

KAITLYN LAWSON is the new office manager and academic program assistant for the Department of Engineering Management and Systems Engineering. Lawson graduated from Tidewater Community College in 2021 with three associate degrees in business administration and administrative support technology and is currently pursuing a B.S. in information systems and technology at ODU. Lawson has a background in consumer relationship management, student engagement and project management. They insist on engaging and providing innovative ways to uplift their community and workplace. Lawson loves to attend conventions, play games with friends and create art in their free time.

SAIGE JOHNSTON is the new first-year success advisor for the Batten College of Engineering and Technology. Johnston graduated from Edinboro University of Pennsylvania with a B.A. in criminal justice in 2018 and a M.A. in college counseling and student affairs in 2021. She has a background in student retention, academic coaching and advising. One of her core values is always putting the student first. Outside of work, Johnston loves to explore new areas and travel, watch the Pittsburgh Penguins, hang out at the beach and spend time with family and friends.

DID YOU KNOW?
ODU offered the first university-level engineering technology program in Virginia.

NEW DEAN OF BATTEN COLLEGE: **KENNETH FRIDLEY**

Kenneth Fridley was recently named dean of the Batten College of Engineering and Technology. Fridley, senior associate dean for administration at the College of Engineering at the University of Alabama (UA), began his new appointment on July 1 succeeding Khan Iftekharuddin, who served as the college's interim dean.

"Kenneth Fridley has substantial accomplishments in teaching and research and as a leader in educational innovation. We are thrilled he is joining the Monarch community," said Austin O. Agho, provost and vice president for Academic Affairs.

"I am tremendously excited to be given this opportunity to join Old Dominion University as the next dean of the Batten College of Engineering and Technology," Fridley said. "I look forward to working with the faculty, staff, alumni and friends of the Batten College to establish a strong vision for the future. We will advance toward that vision together and build upon the history of the many engineers who made the Batten College what it is today. My wife, Paula, and I are thrilled to become part of the ODU family."

Fridley served as senior associate dean for administration at the College of Engineering at (UA) since 2014. He also was interim dean of the Honors College from 2019 to 2022 and head of UA's Department of Civil, Construction and Environmental Engineering from 2003 to 2014. In these roles, he built a culture of innovation, entrepreneurship and readiness for change.

At UA, he led efforts to establish several programs, including a five-year BSCE/MSCE program; the interdisciplinary CUBE promoting student innovation in engineering; Bachelor of Science degrees in construction engineering, architectural engineering and environmental engineering; and the cross-disciplinary MSCE/MBA and MSCE/JD dual-degree programs.

Fridley also transformed honors education, creating and implementing honors student learning outcomes, enhancing curriculum, establishing the Honors College Partner program and creating honors pathways to graduate education.

During Fridley's tenure as head, the Department of Civil, Construction and Environmental Engineering at UA experienced significant growth in enrollment with undergraduate and graduate enrollment more than doubling and doctoral enrollment tripling – and in research awards and expenditures. He also more than doubled the size of the faculty.

In addition, he improved access, diversity and inclusion, and created several mentoring and STEM advancement opportunities, including developing and coordinating a summer research program for 120 Brazilian students and creating the Engineering Positive and Intentional Change (EPIC) Scholars honors program.

Before joining UA, Fridley taught at Purdue University (1990-1992), the University of Oklahoma (1992-1994), Washington State University (1994-2001) and the University of Nevada, Las Vegas (2001-2003). At UNLV, Fridley served as associate dean of research and information technology for the Howard Hughes College of Engineering.

Fridley also brings significant experience developing and advancing philanthropic opportunities, economic development, externally funded research and other fundraising efforts. While at UA, he was involved in two capital campaigns, including the $1.5 billion initiative announced last year.

Recognized as a dedicated educator, Fridley has been the recipient of numerous university and national awards and honors. He was elected a fellow of the American Society of Civil Engineers in 2008 and received the ASCE ExCEEd Leadership Award in 2010.

Fridley also was an early developer of interactive internet-based educational courseware for structural wood design.

A strong advocate for improving the education and preparation of future engineers, Fridley has chaired or served on a variety of local and national committees and advised nearly 40 master's and doctoral students. His former students have moved into leadership positions in industry, public service and academia.

Fridley is considered a leading expert in engineered wood construction, performance and hazard mitigation. He has published 65 refereed journal papers and is a co-author of the leading wood engineering design textbook, "Design of Wood Structures."

Fridley has been responsible for more than $14.4 million in sponsored research, which is supported by a wide variety of federal, state and industry sources. Much of his research has directly impacted the civil engineering profession, resulting in changes in national design specifications, standards and codes.

Fridley earned his B.S. in civil engineering from Washington State University, his M.S. in architectural engineering from the University of Texas at Austin and his Ph.D. in civil engineering from Auburn University.

"We are pleased to welcome Kenneth Fridley to Old Dominion," said ODU President Brian O. Hemphill, Ph.D. "He has a distinguished career demonstrating excellence and innovation in engineering. I am confident that, under Dean Fridley's leadership and guidance, the Batten College of Engineering and Technology will continue to advance in supporting the University's forward-focused vision and fulfilling our important mission of teaching, research and service."

As dean of the Batten College, Fridley will lead efforts to promote excellence in instruction, research, student learning, and community engagement; demonstrate an unwavering commitment to diversity, equity, inclusion and social justice; attract external resources; and support the University's leadership role in regional economic development for the college's six departments.

Photograph: Dean Fridley speaks with professors Moustafa Moustafa and Orlando Ayala during the fall kickoff.

GLOBAL RECOGNITION

BENJAMIN BELFORE'S DEVICE IS 2ND BEST IN THE WORLD

By Sherry DiBari

Benjamin (Ben) Belfore, a newly minted Ph.D. in electrical engineering, recently received good news. A device he fabricated – a spin polarized photocathode – was recorded as second best in the world.

The device was tested and certified at Brookhaven National Laboratory in Upton, N.Y.

Photocathodes – materials that convert light (photo) into electrons – are vital to the performance of particle accelerators like the one at Thomas Jefferson National Accelerator Facility (Jefferson Lab).

Belfore's device, and subject of his dissertation, is a spin polarized photocathode. "The spin polarized portion means that only electrons of a given spin (fundamental property like mass or charge) will be excited," he explained. "The spin of an electron can be thought of as the direction that the electron rotates as it travels."

The development of the photocathode, supported by a $500,000 Department of Energy grant, was done in coordination with three different institutions: Old Dominion University, Jefferson Lab and Brookhaven National Lab.

"We created a spin polarized photocathode that is the second best recorded and the best created with our specific growth process," Belfore said.

He acknowledged that research can be challenging. "The one thing that people never discuss is that research is 90% failure," he said. "As you go through experimental research, it's a process of trying something, failing, and using that knowledge to try something new."

At ODU, Belfore's research success is not a surprise. "Ben is a unique type of researcher, having a background in chemical engineering, studying electrical engineering and working on a problem that is mostly materials engineering," said Sylvain Marsillac, professor in the Department of Electrical and Computer Engineering. "He managed to combine these three fields to fabricate one of the best spin-polarized electron sources in the world in less than 2 years."

In 2019, Marsillac began discussing a spin polarized photocathode collaboration with Jefferson Lab. He worked with Matthew Poelker from the Electron Gun Group to start the process.

Belfore, who was Marsillac's research assistant, decided to use the project as his dissertation topic. The timing was perfect. "I was fortunate to be about halfway through my dissertation studies when the work started in earnest," Belfore said. "Dr. Marsillac provided invaluable expertise and experience to help guide me."

Although Belfore earned his bachelor's degree in chemical engineering at Virginia Tech, he selected ODU for his graduate studies. "I chose ODU for both the proximity and the opportunity to work in a field that interested me: semiconductor processes."

He was already familiar with ODU. His father, Lee Before, is a professor in ODU's Department of Electrical and Computer Engineering.

"My father and his father were both major inspirations for me," Belfore said. "They were both electrical engineers and they inspired me to explore a field in engineering."

Luckily engineering came naturally to Belfore. "I was very interested in STEM as a child. If I had to guess, it probably started with 'I want to be just like my dad' kind of thing, but at the end of the day, I fell in love with the prospect of working on interesting problems that make the world better."

Belfore won't be staying around Hampton Roads though. He's headed off to Idaho to work as a research and development engineer for Micron Technology.

"As you go through experimental research, it's a process of trying something, failing, and using that knowledge to try something new."

Photograph by Michael DiBari Jr.

ALL IN THE **FAMILY**

NILSEN SIBLINGS ARE ELECTICAL AND COMPUTER ENGINEERING ALUMNI

By Sherry DiBari

The Nilsen siblings – Matthew (25), Michael (23) and Rachel (22) – have a lot to talk about when they get together, a rare occurrence for the busy working engineers and graduates of Old Dominion University's Department of Electrical and Computer Engineering.

Matthew '18 is a Navy lieutenant serving on a Virginia-class fast attack submarine as the quality assurance officer and assistant engineer. Michael '20 is a software engineer at the Johns Hopkins University Applied Physics Laboratory (JHU APL). Rachel '22 is an electrical engineer for Dominion Energy's Eastern Region Grid Planning Department.

The siblings may have been inspired by their father, Dean, who was the first Nilsen to attend ODU. Nilsen, a retired career Navy submarine officer and current program manager for Mine Warfare at JHU APL, earned his master's degree in engineering management online in 2003 while alternating between sea and shore duty.

Matthew, Michael and Rachel, from Bristow, Virginia, were all inspired to go into engineering after participating in a Project Lead the Way (PLTW) curriculum at their high school.

> "The best advice I gave to Michael and Rachel was to never be afraid to ask for help. And you get out what you put in." Matthew Nilsen

"That really sparked my interest in engineering," Matthew said. "Coupled with excelling in math and science, I thought engineering was an exciting field to enter after high school."

One of the PLTW courses led him to electrical engineering. "I enjoyed learning how electrical circuits work and how important electrical power engineering is to society," he said.

Matthew chose Old Dominion for the Navy ROTC program in addition to the engineering program. "After I toured the campus, I knew I made the right decision," he said.

Matthew was influenced by Professor Gordon Melrose in ODU's Department of Mathematics and Statistics. "His Calculus III class completely changed my approach to problem solving, which in turn improved all aspects of my engineering curriculum," he said.

When Michael graduated high school, ODU was an easy choice. "I chose ODU because my brother was currently enrolled there," he said. "I really liked the campus when visiting and it was far enough away from home, but not out of state!"

Michael and Matthew were able to spend quality time together at ODU. "I saw Matt occasionally on campus, mostly in Kaufman Hall studying with his friends or working on his senior design project," Michael said. "We also went to the gym and played basketball just about every day the two years we were both on campus."

Michael found a mentor in Sachin Shetty, executive director for the Center for Secure and Intelligent Critical Systems at the Virginia Modeling, Analysis and Simulation Center (VMASC) and professor in ODU's Department of Electrical and Computer Engineering. Michael ended up working with him for most of his four years at ODU. "I was his research assistant starting my sophomore year through senior year, working every semester (including summers with internships), on various aspects of research," he said. "Fast forward, I have been out of school for over two years now and still work directly for Dr. Shetty as a research assistant."

Shetty lauds the siblings' achievements. "It is indeed gratifying to see Matthew, Michael and Rachel's engineering journey," he said. "I am proud of their accomplishments and look forward to hearing about their continued success."

When Rachel graduated from high school, Matthew had already graduated from ODU but was stationed close by at Naval Station Norfolk.

ODU was the obvious choice for Rachel as well. "Matt and Michael before me had enjoyed the classes and curriculum," she said. "I also liked the idea of having my brothers nearby while living in a new place."

Michael and Rachel would see each other occasionally in Kaufman Hall or Dragas Hall. "She would stop in when I was either studying or in a lab working on projects or homework," Michael said.

For Rachel, it was helpful to have him around for his institutional knowledge. "Michael helped me with material as well as scheduling each semester," she said. "It was a big help when it came to choosing professors and help with classes since he already took them."

"I gave Rachel the advice to talk to as many faculty as she could while in school," Michael said. "Coming from a research background and working directly with research faculty, I saw first-hand the experience I was able to get outside of the classroom that was not in any course I took in my program."

When the family is together, the dinner table conversation always goes to their ODU experiences. "We are able to carry on great conversations about many class subjects as well as compare notes on professors," Rachel said. "We talk about how our experiences have been similar as well as different - grades, difficulties, likes and dislikes."

The siblings' mother, Maria, is the only non-engineer in the family. "She describes us as the cast of "The Big Bang Theory" television show," Rachel said." She was always very engaged and interested in our college conversations even if she did not know what we were talking about."

As the eldest, Matthew offered advice on navigating college and life. "Having gone through everything they would eventually do, I was always there to help them study or offer any advice for classes" he added. "But most importantly, enjoy the next four years. They go by quick, so slow down and make the most of each day."

Michael, Rachel and Matthew Nilsen pose at Kaufman Hall after Rachel's graduation.

ONE FOR THE **BOOKS**

VUKICA JOVANOVIĆ NAMED FIRST PERMANENT FEMALE CHAIR IN BATTEN HISTORY

By Jonah Grinkewitz

Old Dominion University named Batten Endowed Fellow and Associate Professor Vukica Jovanović chair of the Engineering Technology Department.

Jovanović has served as interim chair of the department since 2021 and is the first permanent female chair in the history of ODU's Batten College of Engineering and Technology. Trained as an engineering technology educator at Purdue University, Jovanović will be the first chair wwith a Ph.D. in engineering technology.

"This is of great importance to our institution as she is an excellent role model and mentor to increase female representation in engineering," said Nestor Escobales, master lecturer in the Engineering Technology Department. "During Dr. Jovanović's short tenure as interim chair, she has already demonstrated her ability to lead improvements and leave a lasting mark. She is collaborative, a problem solver, data-driven and a great team player."

"As a leader, my main goal is to create a diverse, equal and productive environment so that anyone can achieve their own personal goals and feel appreciated and welcomed," Jovanović said. "I hope that my success in academia serves a higher purpose in society, particularly as a role model to women interested in pursuing careers in engineering and above all to have the courage to serve as leaders in engineering fields."

She said her family valued engineering as an academic field and viable career option for anyone regardless of their gender. Both she and her two sisters, who are also engineers, grew up hearing the sounds of heavy machinery such as lathes, milling machines and other metal-forming operations because their father had a manufacturing company. Jovanović said she also had multiple female role models in her family, including engineering professors and engineering high school teachers.

As interim chair, she led a team of faculty from the Engineering Technology Department to develop and prepare a new major offering in manufacturing engineering technology, filling a critical need for the region's manufacturing industry. The new major will be offered in fall 2022.

Jovanović has published extensively on topics related to engineering pathways, broadening participation in STEM of underrepresented students, digital thread, digital manufacturing, mechatronics, assembly systems and industrial robotics. She has more than 140 peer-reviewed publications. She has served as Principal Investigator and Co-Principal Investigator on numerous federally funded grants (with around $5.5 million directly coming to ODU), many of which have resulted in programming designed to serve underrepresented students in Norfolk Public Schools. She has funded research in engineering technology pathways from the U.S. Department of Education, National Science Foundation, Office of Naval Research and Hampton Roads Workforce Development Board, all focusing on future cybersecurity and advanced manufacturing careers.

"I'm honored to have this opportunity to lead our department and to deliver one of the strongest engineering technology programs in the Commonwealth of Virginia and nationwide," Jovanović said. "One thing that we are all proud of is that we are enabling our students to climb the social ladder and to be valuable society members who are moving this country forward and surely bringing manufacturing back as a viable career option after logistics shortages caused by the pandemic."

Photograph by Chuck Thomas

LEGACY OF **LOVE**

CHRISTOPHER KELLY RAPP SCHOLARSHIP BENEFITS CIVIL ENGINEERING MAJORS

By Sherry DiBari

Many of the scholarships at Old Dominion University come with a backstory, but none so poignant as the Christopher Kelly Rapp Memorial Scholarship in Civil and Environmental Engineering.

Rapp, a 1994 civil engineering graduate, was one of 12 victims of the 2019 Virginia Beach Municipal Center mass shooting. He was 54.

"When Chris' life was taken from him, our family lost a wonderful son and brother, and the world lost an exceptional person," Michael Rapp, Chris' father wrote in a letter.

Christopher Rapp did not take life for granted. He jumped into his interests wholeheartedly – dancing, biking, hiking, traveling and playing musical instruments – all with determination and dedication.

Chris "never stopped seeking new experiences," his father added.

When Rapp took an interest in his Scottish heritage, he taught himself to play the bagpipes and joined the Greater Richmond Pipes and Drums and later the Tidewater Pipes and Drums band.

Rapp made a deal with wife, Bessie, that once he finished his master's degree at Virginia Tech, he would learn to ballroom dance. "We took classes and he loved it," she said. "He wanted to do it every time."

He supported Bessie's Filipino culture as well and became an active member of the Kultura Pilipino group and Filipino-American Association in Richmond, Virginia.

Rapp's interests were only underscored by his dedication to public service.

Over the years, Rapp served as director of public works for several municipalities including Caroline County, Powhatan County and Stafford County.

He and Bessie wanted to move back to Hampton Roads to be closer to his aging parents. He took a position as a stormwater management regulatory engineer for the City of Virginia Beach just 11 months before the shooting.

The Monarch Memorial, created to honor those killed, was dedicated on May 31, three years to the day of the shooting.

After the ceremony, Bessie, Michael Rapp, and other relatives met at the reception to sign a memorandum of understanding for the donation. Rapp's will had bestowed funds for the creation of a scholarship at ODU.

The $1,600 scholarship will be awarded annually to a civil and environmental engineering student who has graduated from a Virginia high school and has demonstrated financial need.

"This is the best way to keep his memory alive," Khan Iftekharuddin, interim dean of the Batten College of Engineering and Technology, told Bessie after the reception.

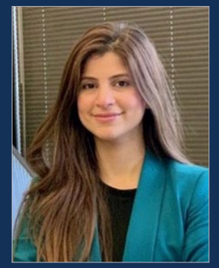
Rapp had strong ties to ODU. His mother, Patricia Rapp '94, was a lecturer and served as assistant director of ODU's English Language Center. She passed away in April 2022.

His late brother, Eric, earned his bachelor's degree from ODU and his other brother Timothy was a student here as well.

"Chris always spoke highly of the time he spent at Old Dominion University and regarded the education in the engineering field that he received there vital to his career," Michael Rapp wrote. "It prepared him well for a wide range of opportunities, not only by providing him with the essential tools for his career achievements but also by nurturing in him the spirit of public service."

The scholarship was a way for him to pay it forward, Bessie explained. "It's what he wanted. "He was very kind and caring and devoted his time and energy to things close to his heart and to helping others. This will help the students to have a good future, a brighter future, in whatever they want to do."

NEW FACULTY



DALYA ISMAEL, a new tenure-track assistant professor in the Department of Civil Engineering Technology, has published numerous journal papers and has been recognized for excellence in research, undergraduate teaching, and outreach. Ismael has international construction industry and teaching experience and has worked with the United Nations to explore global sustainability challenges facing communities worldwide.
She is a LEED Green Associate and an Envision Specialist. Ismael's research interests include sustainable construction, behavioral interventions, virtual reality, climate change, and resilience.

EDUCATION: Ph.D. in civil and environmental engineering in sustainable development & behavioral science from Virginia Tech, M.S. in engineering project management from the University of Leeds (U.K.).

DHARMAKEERTHI (KEERTHI) NAWARATHNA is a new professor in the Department of Electrical and Computer Engineering. Nawarathna was previously an assistant and associate professor in the Department of Electrical and Computer Engineering at North Dakota State University, in research and development at University of California, Irvine and Santa Barbara, CA, University of Notre Dame and ApoCell, Inc. His current research develops and utilizes the concepts in electromagnetics, biomanufacturing, and microfluidics for developing novel capabilities in medicine and biology. Nawarathna has written over 70 publications, three issued patents and two patent applications, and two book chapters. Nawarathna was admitted to the National Academy of Inventors as a member in 2020. He has won a number of prestigious teaching and research awards including the NSF CAREER award, a BD cancer research award, a NDSU impact award, and NDSU College of Engineering Teacher and Researcher of the Year award.

EDUCATION: B.S. in mechanical/electrical engineering from the University of Peradeniya (Sri Lanka) and Ph.D. in applied physics from the University of Houston.

MONA TORABI, a new full-time lecturer in the Department of Mechanical Engineering Technology, has been an educator for over nine years, including serving as an adjunct professor in the MET department since 2019. She has also been a researcher at the Center for Advanced Materials Processing at Clarkson University and worked on developing nanocomposite material for GE Oil & Gas marine drilling equipment. Her experience includes material characterization, fracture and fatigue mechanics, nanocomposites nano-indentation, and polymer material thermal stability. In addition, she has industrial experience as a process/design engineer at various manufacturing companies.

EDUCATION: B.Sc. and M.Sc. in mechanical engineering from Shahid Bahonar University (Iran) and Ph.D. in mechanical engineering from Clarkson University.

MARÍA (ESPILONDO) MURDOCK, is a new full-time lecturer in the Department of Civil Engineering Technology. Murdock has been an adjunct in the department since 2014. For the past 16 years she has also been employed as a senior project manager at a local geotechnical engineering company. Murdock, a professional engineer for 22 years has practiced engineering in Virginia, Florida, Japan, and Argentina. Her experience includes geotechnical engineering, hydraulic and hydrology, environmental engineering, construction management and financial/systems engineering. She has performed geotechnical studies and managed material testing during construction for different types of projects ranging from transportation, structures (bridges, multi-story buildings, high-rise), ports, multi-nodal facilities, among others in the Hampton Roads area. Additionally, she developed and managed budgets, performed bottom-up analyses for complex federal acquisition programs, including assessment of industry proposals, contract and price modifications and incentive strategies. She is a member of the American Society of Civil Engineers and the American Society of Highway Engineers, which she presided for several years.

EDUCATION: B.S. and M.S. in civil engineering from Clemson University.

SALIH SARP is a visiting lecturer in the Department of Electrical Engineering Technology. From 2019 to 2020, he worked as a research assistant at ODU's Transportation Research Institute. In 2020, he joined the Advanced Wireless Security, Communications and Networking Lab of VCU as a research assistant. His research interests include artificial intelligence, digital twin, data-driven healthcare, smart cities, forecasting, wireless communication, blockchain, and Internet of Things (IoT).

EDUCATION:
B.Sc. in electronics and communications engineering from Dogus University (Turkey), M.Sc. in electrical engineering from George Washington University and Ph.D in electrical and computer engineering from Virginia Commonwealth University.

PENGFEI WANG is a new assistant professor in the Department of Civil and Environmental Engineering. Prior to joining ODU, Wang was a postdoctoral research scholar at the University of California, Los Angeles (UCLA). Wang's primary research interests include geotechnical engineering, engineering seismology, and applied statistics, emphasizing regional geo-hazard modeling and analysis, multi-hazards risk assessment, geospatial analysis, and statistical learning and modeling in civil engineering applications.

EDUCATION: M.S. in statistics and Ph.D. in geotechnical engineering from UCLA.

EARLY ADVANTAGE

SUMMER PROGRAM GIVES ENGINEERING STUDENTS A HEAD START

Nine incoming female engineering students in ODU's residential Early Engineering Advantage Program (EEAP) got a head start on their academic success this summer.

The students spent most of the week working on presentation skills and team-building group projects. EEAP events included an engineering panel, etiquette lunch, classroom finding expedition and submarine tour at Naval Station Norfolk.

The Batten College of Engineering and Technology established EEAP in 2001 to attract, retain and develop female students in the traditionally male-dominated field of engineering. The program is partially sponsored by the Virginia Space Grant Consortium.

Over the past 20 years, many alumni have gone on to successful engineering careers at organizations like NASA, Amazon, PepsiCo, Huntington Ingalls Industries, Norfolk Southern, Dominion Energy and General Dynamics.

The week concluded with student presentations and a visit from Abbie Dean, an EEAP alumni and professional engineer. She advised the students to pursue their outside interests and participate in non-academic clubs. "It's important to feed your soul as well as your academics," she said.

"The best part of the week was seeing all the women engineers and bonding with the girls at night after the activities," said participant Alanna Garrett. "It's great to know that I will have this support group at ODU," she added.

By Sherry DiBari

This year we finally said goodbye to the funny-faced Ram Jet in Kaufman Hall. The machine, built in the 1950s and purchased by ODU sometime in the 1960s, was used to teach students about small scale engines.

The Ram Jet was already situated in Kaufman 104 when Department of Engineering Technology Professor Emeritus Gary Crossman joined the University in 1970. "I began using it in our Thermodynamics Lab course soon thereafter," he said. "It was the favorite experiment of the lab, and when we ran it, the noise and vibration attracted everyone in the building and the surrounding area."

About 15 years ago, when the machine stopped working, the staff had to call the British-based manufacturer, PA Hilton, to get a replacement part. "They couldn't believe it was still working and they sent the part for free," said Nathan Luetke, master lecturer and program director for the Department of Mechanical Engineering Technology. "All they asked for was a video to show clients how durable it was."