

# CEE Alumni News





# THE GROVE OF SHARING

Trees have a varying abundance of gifts. Like most any institute of higher learning, the Via Department of Civil and Environmental Engineering largely depends on the gifts we receive from our alumni, students, faculty, and friends. These gifts help us achieve our goals in the areas of undergraduate and graduate teaching, research, and public service.

We have found a way for everyone to grow with us and to recognize those who generously give through our "Grove of Sharing" expandable tree sculpture that is beautifully displayed on the lobby wall of Patton Hall for all to see.

Eventually, each leaf on the tree will recognize every annual gift of \$250 or more by engraving the names of individual donors. Every gift makes a difference and enables us to do more, be more and give more to our students, our nation and our world.

Gifts provide critical funding for:

- Teaching
- Student fellowships and scholarships
- A distinguished lecture series and professional seminars
- Faculty and student achievements and awards
- Recruitment support
- Student chapter leadership
- Cooperative education activities
- ...and so much more

**AS OUR GIFTS AND FAMILY OF ALUMNI GROW,  
OUR TREE WILL BECOME A GROVE.**

Not only does the unique sculpture recognize our donors, but it becomes a part of the heritage of the Via Department of Civil and Environmental Engineering and will remain a centerpiece for many years to come.

Pledge to make an annual gift of \$250 or more and we will engrave the inscription of your choice on a leaf on the tree and you will become a part of the Grove of Sharing tree and the department's heritage.

Contact Sam Easterling at [seaster@vt.edu](mailto:seaster@vt.edu) to make your pledge today.



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# CEE

# A L U M N I N E W S

Via Department of Civil  
and Environmental Engineering  
Annual Newsletter  
2017

Department Head  
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Alumni Board Chair, 2016 – 2017  
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**On the cover:** VT CEE Senior Richard Daum and VT CEE alumnus Col. Richard S. Daum, Jr. ('85)

## Note from the Department Head

Many things have changed at Virginia Tech over the years, but the exceptional students and faculty in the CEE department has only grown stronger. I am looking forward to the pleasure of presenting diplomas in a few months to a new group of graduates of the Via Department of Civil and Environmental Engineering. The accomplishments of this class of students are outstanding and I look forward to following their success beyond graduation.

I always enjoy the opportunity to provide an update on everything that is going on in our department, from student activities and projects to a snapshot of some of the many wonderful things with which your fellow alumni are involved.

You may have seen news about the newest addition to the College of Engineering, Dr. Julia Ross. She was appointed as dean and will begin on July 31. You can learn more about her on page 13.

Faculty in all of our program areas have been recognized this year for their outstanding research. This newsletter gives us the opportunity to share a few of those awards and honors that have been bestowed upon our faculty. The CEE faculty continue to provide high quality instruction to our students and lead cutting edge research of importance to the profession and society. Virginia Tech students, as well as members of the broader civil engineering profession, benefit from their talents and dedication on a daily basis. These talented individuals are a huge reason why the department continues to be ranked in the top 10 civil engineering programs by U.S. News and World Report. I hope you enjoy reading about some of their activities and successes.

Our alumni continue to impress me with the amazing things they accomplish each and every year. One of the great pleasures I have in my job is being able to interact on a regular basis with some of our over 10,000 living alumni. These interactions range from working closely with members of our Alumni Board, meeting folks at departmental and university events, and having the pleasure each year of being part of recognition dinners for some of our distinguished and young alumni award recipients. I want to call your attention to the updates, awards, and news of some of your colleagues – alumni of our department. I hope you enjoy reading about them!

I encourage you to visit our website at [www.cee.vt.edu](http://www.cee.vt.edu) and follow us on Twitter at @VirginiaTechCEE. You'll find departmental developments on research, awards, student and faculty updates, and alumni highlights updated on a weekly basis. You can also connect with us on LinkedIn and Facebook.

I hope to see many of you on campus during the coming academic year. Please feel free to stop by the departmental office when you're on campus or to contact me by phone (540-231-6635) or email ([seaster@vt.edu](mailto:seaster@vt.edu)). I welcome the opportunity to catch up with those I know as well as meet those of you I don't know.



**W. Samuel Easterling**

*Sam Easterling*

# Charles E. Via, Jr. Department of Civil and Environmental Engineering Alumni Board



Jessie Berg  
DC Land Development



Tom Broderick  
Arlington County



Young Ho Chang  
ATCS, P.L.C.



David Clarke  
VDOT



Bernie Deneke  
NAVFAC Atlantic



Brian Diefenderfer  
VDOT



Betsy E. Dulin  
Coates & Davenport, P.C.



Martha Gross  
Arup



Govi Kannan  
Volvo Group N. America



Charles Kilpatrick  
VDOT



Jeff Lighthiser  
Draper Aden Associates



Herb Morgan  
Fluor Enterprises



Aaron Muck  
Terracon Consultants



Skip Notte  
Dewberry  
Vice Chair



Maysill Pascal  
Menard - USA



James Patteson  
Fairfax County



Ann Piazza  
L.A. Fuess Partners



Katherine Plasket  
Bechtel Power  
Chair



Beth Turner  
Retired  
(Dupont)



Edward Westerman  
Clark Nexsen, Inc.

# Does your CEE degree relate to your job?

Graduates from the class of 2016 were asked about their plans after graduation. Seventy-seven percent of the total graduates responded and here's what they had to say.

What are your plans after graduation?



35% plan to attend graduate school



50% are employed or seeking employment



2% are committed to U.S. military commitment



13 % Other

Types of career-related experience includes:

- Volunteer work
- Part-Time Job
- Summer job
- Unpaid or paid internship
- Co-op
- Undergraduate Research
- Field Study

89%

Percentage of students who said their employment was related to their career goals

86%

Percentage of students who said their employment was VERY related to their major

The median starting salary is for VTCEE graduates is \$58,000

**PLUS**

47% received a signing bonus with their job offer

Results based on 122 graduates (77%) of the class of 2015.



# Bryan Katz receives Alumni Teaching Excellence Award

Bryan J. Katz, Assistant Professor of Practice and a three time alumnus of our department has been awarded the Alumni Teaching Excellence Award. He is the Vice President of Engineering at toXcel, LLC, a company committed to promoting and improving the safety, health, and well-being of people everywhere by providing expertise in challenging scientific issues.

Dr. Katz is known for his enjoyable class lectures and outgoing personality. His areas of interest include traffic engineering, transportation safety and operations, and traffic control devices. His passion for teaching is contagious to his students for a variety of courses

including Introduction to CEE, Introduction to Transportation Engineering, and Geometric Design of Highways. His guidance extends beyond graduation, as he is known to keep in touch with students throughout their careers.

“He has gone above and beyond to teach and help me through graduate studies and my transition to work. He is passionate to teach and truly loves what he does,” said alumna Amanda Fedrochak (B.S. ‘14).

Alumna Erin Littleton (B.S. ‘12, M.S. ‘13) agreed. “Dr. Katz cares more about his students than anyone I know, and he makes learning fun. He goes out of his way to help students with their academics and future careers.”

In the past year, he has been awarded the Eugene D. Arnold, Jr. Outstanding Individual Activity Award by the Virginia Section of the Institute of Transportation Engineers, a Certificate of Teaching Excellence from the College of Engineering at Virginia Tech, and the Favorite Faculty Award from the Virginia Tech Office of Residence Life. He was also recognized as an Outstanding Young Alumni in our department in 2009.



Bryan Katz receives the Alumni Teaching Excellence Award by CEE Alumni Board.

# Tripp Shealy receives the G.V. Loganathan Award



Tripp Shealy receives the G.V. Loganathan Award for Teaching Excellence

“Dr. Shealy clearly shows how much he cares for his students,” said Nora Harris. “He takes time to develop undergrads and get them involved with research, while also ensuring that his graduate students are gaining all of the experiences that they need to be a top candidate for future opportunities.”

Developing students to succeed in the future is something that Shealy strives to do. He is currently working on a research project titled “Preparing engineers to address climate change and its implications on sustainability: modeling impact of college experiences on students.” His other research focuses on engineering decision making for sustainable infrastructure systems. He targets under-explored areas by applying concepts from psychology and

data science to implement cost-effective ways to guide stakeholders in the infrastructure development process toward decisions that lead to more sustainable outcomes.

His research interests also include how themes related to sustainability can attract new students to study engineering.

“Sustainability is a big part of Dr. Shealy’s curriculum and he shows that he knows it well,” said Taylor Bolte. “Being in class with him and doing research with him has positively affected my learning at Virginia Tech.”

His interest in sustainability and student decision-making began in his time at Clemson University. He earned all three degrees from Clemson and worked briefly as a consultant for the construction industry

reviewing building codes, assisting engineering firms with sustainability assessments, and as a project engineer building water treatment facilities. He joined Virginia Tech in 2015 as an assistant professor for the CEE department and a principal faculty member in the Myers-Lawson School of Construction. He teaches a wide variety of courses including Estimating, Production, and Life Cycle Analysis, Sustainable Engineering Design and Management, Decision Making for Sustainable Systems, and Global Virtual Design and Construction.

The G.V. Loganathan award was formerly known as the CEE Faculty Achievement Award. It is determined by a poll of current CEE students.

# One Department, four stories of VT CEE Spirit

Hokie spirit. It is something all Hokies know, feel, love, and continue to share throughout an entire lifetime. For many, Hokie spirit runs through families as multiple members are Hokies. The freshman class of 2020 has 1,742 Hokie legacies who had a parent, grandparent, or sibling go to VT. For these four civil and environmental engineering students, the CEE spirit runs in the family too.

## Alex Tucker and Michael Tucker (B.S. '85)

“He didn’t have a choice,” Michael Tucker joked when speaking about his son Alex’s college decision. Alex Tucker, a senior in the civil and environmental engineering department comes from a family of Hokies. His parents, Sandra and Michael Tucker graduated from Virginia Tech in 1985, majoring in marketing education and civil engineering respectively. His older brother was also a Hokie that graduated with a degree in industrial systems engineering.

Alex always knew he wanted to do engineering and Virginia Tech was a great place to do that. “I knew I wanted to follow in my dad’s footsteps of being an engineer because that’s something to be proud of,” Alex said. “He’s the one that got me going in this direction.” Michael has worked for BC Consultants in Fairfax, Virginia as a land developer for 31 years since he graduated. Now, his son Alex is taking Introduction to Land Development this semester.

“I know that there is a need for civil engineering. Having a large responsibility for plans is appealing to me and I like the broad range of disciplines within the CEE fields,” said Alex.

As much as Alex was interested in following in his dad’s footsteps, he wanted to create his own path as well so he joined the Corps of Cadets. He also plays the sousaphone in the Highty-Tighties. All of a sudden, his parents who were accustomed to everything at Virginia Tech, realized they still had a lot to learn about Virginia Tech, specifically the Corps. Following graduation, Alex will commission to the Air Force. He is then undecided if he will make a career in the military or join the civilian workforce as a civil engineer.

“My parents always said we could go to whatever college we wanted,” noted Alex. “But let’s just say we were strongly influenced with Virginia Tech stuff all over the house.” Hearing stories about his parents’ time at Virginia Tech were also entertaining, notably ones about sledding on the dining hall trays and the lack of food options on campus.” “Virginia Tech has certainly grown and there are new buildings. But it is neat that many of the traditions haven’t changed throughout the years,” Michael said.



## Richard Daum and Col. Richard S. Daum, Jr. (B.S. '85)

“My dad definitely encouraged me to go to Virginia Tech,” said senior Richard Daum. While searching for colleges, Richard was most interested in attending West Point where his grandfather went, but both of his parents went to Virginia Tech and he ultimately felt it was also the best fit for him.

His dad, Richard S. Daum, Jr. majored in civil and environmental engineering and his mom majored in psychology and communication, both graduating in 1985. Richard is following in his dad’s footsteps, first by attending Virginia Tech, being in the Corps of Cadets, and majoring in civil engineering. He hopes to continue to follow his dad’s lead through a career in the army.

As Richard grew up, the family wasn’t able to visit campus often, but now, his parents come back yearly for move in, Corps of Cadets parades, and Richard’s birthday. They are continually shocked by the amount of change on campus and throughout Blacksburg. “They miss being able to stand on Main Street and see the Pylons lit up,” said Richard. “But they do like how the area has built up around campus. When they went here, there really wasn’t much of anything to do around campus.”



## Ellen Long and Stephen R. Long (B.S. '83)



Ellen Long knew from a young age that she wanted to go to Virginia Tech. “My dad has been preaching civil engineering at Virginia Tech since I was very small,” she said about her dad Stephen. “It wasn’t until I was actually looking for schools that he told me about some other colleges, but by then it was already ingrained.” She also noted that the high departmental ranking in civil engineering was an important factor in her college decision. In fact, she always knew she wanted to become a civil engineer and follow in her dad’s footsteps. Growing up, she heard him talk about his job and the other broad work options in civil engineering and knew it was the path for her. Stephen is a Senior Principle Project Engineer at General Dynamics in Virginia. Ellen also interned there and interned with NASA. Following graduation, she hopes to continue a career with one of those organizations.

They aren’t the only two in the Long household that were Hokies. Ellen’s brother, aunt, uncle, and grandfather all attended Virginia Tech. She grew up hearing stories about the university in the eighties. “My dad still likes to live his college years,” she said. “He once told one of my friends that Virginia Tech was the best four years of his life.” He still likes to come to Blacksburg for an occasional football game or to wander the hallways of Patton Hall, where his composite photo still hangs on the third floor.

Being a civil engineer at Virginia Tech clearly runs in the family. Perhaps it is time to start ingraining that Hokie Spirit in Ellen’s two year old son to continue their VT CEE legacy.

## Meghan Hekl and Jessie Hekl (B.S '13, M.S. '15)

Two sisters. Both went to Virginia Tech. Both majored in civil engineering. Both got their bachelors and masters degree from the CEE department. Both are interested in EWR and Land Development. Both served as president of the Sustainable Land Development Club. The Hekl sisters certainly have a lot in common. However, Meghan admits that her sister wasn't necessarily the reason she chose to go to Virginia Tech. As a swimmer growing up, many of the older swimmers on the team became Hokies, so she knew as young as second grade that she wanted to go to Virginia Tech and she wanted to be an engineer there. In fact, it was the only school she applied to for admission.

Although Meghan knew she wanted to be an engineer, she wasn't sure which discipline of engineering. She narrowed it down to civil and mechanical, but ultimately chose civil. "I think my sister going through this department did influence my decision to go civil," she said. "I didn't know much about what civil engineering was when I came in, but I learned more from her. She told me about the classes she was taking and the projects she did. She taught me that there is a field dedicated to everything that goes on in the world. I think that was a main contributor to my decision." Ironically, Jessie admits that she actually tried to talk Meghan into majoring in architecture because she thought she would enjoy it more. Despite her efforts, Meghan pursued civil engineering and is currently a second semester graduate student, while Jessie now lives in Golden, Colorado and works with Bowman Consulting.

The sisters have a lifetime of memories together, but sharing career interests has added yet another way for them to bond. "We tend to go off on big tangents about stormwater and our field in particular," Meghan admitted. They took many of the same classes and had the same professors in those classes, but never at the same time.

Both of the sisters agreed that some of their favorite memories from Virginia Tech include a summer they spent together in Blacksburg taking classes. They enjoyed time at the river, took a pottery class, rode bikes on the Huckleberry Trail, and frequented the farmer's market. They also loved volunteering at the Montgomery County Animal Shelter walking dogs on Saturday mornings.



# CEE Alumni Board celebrates 30 years

The civil and environmental engineering alumni board held its first meeting in the fall of 1987. At the time, the department had 36 faculty, 450 undergraduate students, 170 graduate students, and over 5,000 alumni of the department. Fast forward 30 years, and while the department and those numbers have certainly grown, the goals of the alumni board remain largely the same.

The original charter stated the purpose of the board was to “provide advice and support to the department on existing and proposed educational and academic programs and other activities.” The current board continues that mission and adds a goal of serving an advocacy role for the department, while providing perspective on engineering trends and to assist faculty in achieving their mission of education, research, and outreach.

“Being the founding group, we were initially tasked with setting forth a formal statement of goals and objectives for the board and establishing relationships with the College of Engineering and the university,” said Randy Rivinus (‘68). “Most importantly, we worked with undergraduates to express how Virginia Tech benefitted each of us and to promote the various fields of practice in which we were working.”

The board agenda from that first meeting looks similar to the one the board will have this spring, with activities including tours of the labs, meetings with faculty, and a department head overview.

The unique thing about the CEE alumni board is the concept that members of the board are members for a lifetime. While there is a current board with members that partake in any voting procedures, past board members are welcome to attend the meetings and events. In fact, many of them do attend, sometimes outnumbering the current members at meetings.

“All of the founding board members are scattered all over the place which makes it tough to stay in frequent contact,” said Randy. “However, board members from later years are friends with whom I continue to share experiences at board meetings and other events throughout the year.”



The CEE Alumni Board took a photo after their meeting on October, 16, 1987. Board members from left to right are Randy Rivinus, Kip Robinson, Max Sproles, Department Head Wayne Clough, Lou Guy, Stanley Cohen, Mike Quillen, John Ruth, Jack Hill, Chuck Hughes, and Ray Martin.

Current and past members are highly involved in department activities by attending awards banquets and alumni events, nominating alumni for our Academy of Distinguished Alumni, and serving as liaisons for the department in their day-to-day lives. Some teach courses for the department or serve as industry advisors for student organizations. Members also give monetary contributions to an alumni board scholarship and an Alumni Teaching Excellence award given to a faculty member each spring.

Since that first meeting in 1987, many things have changed. “In the CEE department particularly, there is much more national and even global presence of the university which only enhances the educational experience the students receive,” said Randy. He noted that this is obvious through the student presentations that are given each semester to the board and during the CEE Research Day, in which many past and present board members serve as judges.

“The breadth and experience of faculty and the presence of Virginia Tech both in the academic world and in the community overall has expanded beyond anything that this founding group of board members could have imagined.”

# Alumni Achievement Awards Program

## Academy of Distinguished Alumni Class of 2017

Mr. David W. Cocke  
B.S. 1980

Mr. Darren R. Conner  
B.S. 1983

Mr. Thomas J. Dalzell  
B.S. 1957

Dr. Ronald L. Meng  
Ph.D. 1996

Mr. J. Michael Potter  
B.S. 1975

Dr. Guoqing Zhou  
Ph.D. 2011

### Outstanding Young Alumni

Dr. Emily A. Sarver  
Ph.D. 2010

Dr. Lee Bryant  
M.S. 2003, Ph.D. 2010

These awards come from nominations submitted by our alumni. If you are interested in nominating someone for induction into the CEE Academy of Distinguished Alumni or Outstanding Young Alumni Award, please contact Courtney Long, Coordinator of Alumni and External Relations, for the nomination forms.

The form, resume, and cover letter can be completed via email to [celong@vt.edu](mailto:celong@vt.edu) or mailed with supporting documents to:

Via Department of Civil and Environmental Engineering  
Virginia Tech  
200 Patton Hall  
Blacksburg, VA 24061

## The Academy of Distinguished Alumni



David W.  
Cocke



Darren R.  
Conner



Thomas J.  
Dalzell



Ronald L.  
Meng



J. Michael  
Potter



Guoqing  
Zhou

Alumni may be selected for induction into the Academy of Distinguished Alumni based upon a review of overall career accomplishments, contributions to the profession and their community, and service to Virginia Tech. Younger alumni within 15 years of their B.S. degree may be selected for an Outstanding Young Alumni Award. After this year's induction, there are a total of 114 members in the CEE Academy and 52 Outstanding Young Alumni.

## Outstanding Young Alumni



Emily A.  
Sarver



Lee Bryant

# Alumnus stays involved with Virginia Tech around the globe

It can be hard to stay away from southwest Virginia after going to Virginia Tech. This proved to be the case for Julio Roa ('09). After earning his bachelor's degree in civil engineering in 2005 in his hometown of Santo Domingo in the Dominican Republic, he worked for two years in the construction industry overseeing construction activities and operations of a roadway and marina project in Punta Cana.

He then moved to Blacksburg, where he fell in love with hiking, kayaking, and the faculty and students at Virginia Tech. While earning his master's degree, he researched highway safety and high-friction surface-pavement performance at the Virginia Tech Transportation Institute (VTTI).

Following graduation, he worked in Washington, D.C. for a couple of years before returning to the Dominican Republic where he became a vice president of engineering for a civil engineering company.

Despite the vast geographical distance, Julio could not stay separated from his involvement with Virginia Tech. During the summers, he collaborated with Dr. Antonio Trani on co-instructing the Airport Planning and Design course at Virginia Tech's Punta Cana campus. This is the department's most



Airport Planning and Design class at Punta Cana Airport

popular study abroad trip, partly thanks to the experience and access they are given at Punta Cana International Airport.

"Through my years of engineering practice, I knew the collaboration and expertise of VT faculty were essential to the success of my projects," Julio said. "When the time came to consider pursuing a Ph.D., I didn't consider any other university." He returned to Blacksburg in 2016 where he is currently pursuing his doctoral degree. He teaches computer applications in civil engineering and, once again, co-instructed the Construction Management course in Punta Cana during the 2017 winter session. He taught students the fundamental elements of planning and managing construction projects across borders.

"Academia energizes me," he noted. "I want to help students prepare to contribute as vibrant members of the engineering workforce." He believes there is no better place in the world to do that than at Virginia Tech.



Julio Roa (center) measures roadway surface properties on I-81

# Via Alumni come to campus for 30 year anniversary

On December 1, 2016, students, alumni, family and friends gathered at the German Club Manor at Virginia Tech to celebrate the 30th anniversary of the Via Scholars Program. During the reception and banquet, three undergraduate students, 20 masters students, and 11 doctoral students were recognized. For the first time in the banquet's history, 22 alumni in attendance for the weekend were also honored. The alumni, with graduation dates ranging from 1991 to 2016, had the opportunity to catch up with fellow alumni and professors and advisors.

The following morning, alumni attended a breakfast at the Inn at Virginia Tech and presentation by Dr. Easterling before touring some of the many new buildings on campus,

including The Classroom Building and Goodwin Hall.

The Via scholars program began in 1987 when Mrs. Marion Bradley of Roanoke, Virginia and her family generously contributed \$5 million each to the departments of electrical and computer engineering and civil and environmental engineering. Both departments use a portion of the endowment to award scholarships to qualifying students. These scholarships are among the most competitive in the country. Since the Via endowment was created in 1987, the department has received more than \$20 million in support.



Jennifer and Randall Boe ('91) traveled from Florida for Via Alumni weekend

## LDDI Enjoys Strong Connection to CEE Alumni

Since its inception in 2006, the LDDI program has embraced a grass-roots, organic model to steer strategic planning and foster program growth. Any organization relying on such a model requires not only a large, diverse network from which to draw upon for program support, but also strong enthusiasm among the members of that network. Over the past 10 years, LDDI has tapped into the large and proud CEE alumni base to involve land development professionals in teaching, student mentoring, curriculum development, and promoting land development and professional licensure to our students. Currently, LDDI's "General Membership" is comprised of more than 700 individuals, a substantial majority of which are VT alumni. It is worth noting that more than 1,000 students have passed through the five courses comprising the LDDI curriculum.

While there is no doubt that the LDDI program has provided immeasurable benefit to students, the land development industry as a whole is also enjoying the program's success. Draper Aden Associates CEO Jeff Lighthiser ('77) states, "the LDDI program has allowed for both private and public sector land development professionals to develop strong ties to Virginia Tech students and faculty, and inspired many to give back to the profession

and their alma mater." Similarly, Roy Waugh ('83), principal, Bowman Consulting Group, states, "the LDDI program allows the university to draw from veterans in the consulting engineering community, many of whom are alumni, to assist with instruction and student mentoring. One result is that the placement rate for students focusing on the LDDI curriculum stands near 100% over the past decade."

In addition to program participation, CEE alumni also provide financial support to LDDI through the individual donor program. To date, more than 40 individuals have given financially to the program, with donations ranging from a \$180,000 gift made by a 1962 CEE alumnus to \$50

contributions made by recent program graduates during their first years following graduation. GORDON Sr. Associate and Director of D.C. Land Development Jessie Berg ('08) says of her personal contributions to the program, "No other course or program better prepared me for my career within land development. LDDI is truly unique in that its participants are educated to succeed both technically and professionally in their careers. Graduates of LDDI are being sought out by firms nationwide, which is a reflection of the success of the program. I feel honored to say that I was a participant of the program as a student and continue to be a participant as a Professional Engineer." The LDDI Individual Donor campaign is part of a larger effort to endow the LDDI program. The endowment funds can be used to expand the Program with more professorships, student scholarships, and provide more research opportunities within the field of land development."

Department alumni wishing to learn more about the LDDI program are encouraged to visit [www.lddi.cee.vt.edu](http://www.lddi.cee.vt.edu) or to contact Program Coordinator Dr. Randy Dymond ([dymond@vt.edu](mailto:dymond@vt.edu)) or Assistant Coordinator Kevin Young ([keyoung@vt.edu](mailto:keyoung@vt.edu))



Arch Marston ('82) and Chris Schaible ('15) meet with a CEE 4274 student design team.

# Julia Ross named dean of the College of Engineering

## UMBC

Dr. Ross joins VT after serving as Dean of Engineering and Information Technology at University of Maryland, Baltimore County. UMBC is ranked No. 4 on U.S. News & World Reports' list of Most Innovative Schools and in the top 10 for best undergraduate teaching, the second highest-ranked public university in that category.

### Environmental Engineering!

At UMBC, she led the merger of the Civil and Environmental Engineering and Chemical and Biochemical Engineering departments. She also helped to form the new undergraduate track in Environmental Engineering and Sustainability.

## Awards

Dr. Ross is a Fellow of the American Institute of Medical and Biological Engineering. In 2013, she received the American Council on Education fellowship, the nation's premier higher-education leadership development program preparing senior leaders to serve American colleges and universities.

## Selected

She was selected from many strong candidates following an international search. Dr. Ross will begin at Virginia Tech on July 31, 2017. She will replace G. Don Taylor, the Charles O. Gordon Professor and head of the Grado Department of Industrial and Systems Engineering, who has served as interim dean of the College of Engineering for the past year.



Photo taken by Marlayna Demond '11 UMBC

## Research

At UMBC, she has served in various roles, including chair of chemical, biochemical, and environmental engineering. Her research focuses on the role of fluid mechanics in infection formation in the cardiovascular system. She holds a bachelor's degree from Purdue University and a doctoral degree from Rice University, both in chemical engineering. At Virginia Tech, she will hold tenured appointments in the departments of chemical engineering and engineering education.

## IN SPIRING

She is the principal investigator leading INcreasing Student Participation, Interest, and Recruitment in Engineering and Science (INSPIRES) K-12 initiative. The program, funded by the National Science Foundation, partners with Baltimore County Schools to develop and implement an innovative curriculum that exposes high school students to engineering earlier in their educational careers, through existing science and technology classes.

## Global

In October, she was elected to the executive committee of the Global Engineering Dean's Council, where she will serve a three-year term and work closely with engineering deans from around the world to advance engineering education, research, and service globally.

## Travel Enthusiast

She describes herself on Twitter as "professor, luckiest mom in the world, wife, travel enthusiast, and all about the food!"

# Senior Spotlights



**Name:** Eric Bianchi

**Area of Interest:** Structural Engineering and Materials

“Virginia Tech was always on my list of schools to attend. Once I went on the tour, it was an easy choice,” said senior Eric Bianchi. Eric is interested in structural engineering, but also minoring in Spanish. He took a trip to Spain over winter break to visit and apply his language skills.

Outside of classes, Eric has stayed busy during his time at Tech figuring out his future, going on runs by the farms in Blacksburg, going to football games, and creating a parking app.

“Parking at VT is a little wild,” he said. “I assembled a team with the idea to create something that changes over time so you can see real-time parking.” He and his friends were tired of getting tickets and searching for parking all of the time on campus. They came up with an app where you can choose the parking lot and the type of parking pass you have. The app will show you a real-time photo of that lot to see where there is available parking. While the app hasn’t officially launched yet, he hopes it will be out in the near future.



**Name:** Sasha Redmon

**Area of Interest:** Transportation

Sasha Redmon originally chose civil engineering because she had a passion for architecture. However, there was one setback. “I can’t draw...I can’t draw at all,” she admitted. She is good at math though, which led her to civil engineering, where she started in structures but now has a budding interest in transportation. In fact, she will be staying at Virginia Tech for graduate school in the TISE program next year.

Her dream job is doing something with highway design and working with departments of transportation.

She currently splits her time between schoolwork and working at an internship with Leidos doing transportation safety. She hopes to gain experience and eventually become a professionally licensed engineer. While she is still unsure what she would like to do following graduation in a couple of years, she is sure about one thing. She wants to start her career in northern Virginia, “mainly because that is where my dog is.”

# Alumni Updates

## 1950s

**John Hildebrand** – '50 – Received the Charles Brown Award from Roanoke College

## 1970s

**Charles Steger** – '78 – Virginia Tech campus building dedicated as Steger Hall on November 11, 2016

## 1980s

**David Dee** – '87 – Received the Maryland Section Civil Engineer of the Year Award

## 1990s

**Glenda LaRue** – '91 – Named Chief Strategy Officer for the Women in Engineering Proactive Network (WEPAN)

**George Filz** – '92 – Reappointed the Charles E. Via, Jr. Professorship  
Received the Wallace Hayward Baker Award from ASCE  
Selected as the ASCE Geo-Institute's Cross-USA Lecturer for 2016  
Inducted as an honor member of VT's chapter of Chi Epsilon

**Lt. Col. Zane Mitchell** – '93 – Selected as dean of the Pott College of Science, Engineering, and Education at the University of Southern Indiana

**Clayton Hodges** – '94, '97, '16 – Joined CEE department as a Research Assistant Professor

**Matthew Helmers** – '97 – Named to EPA Scientific Advisory Committee

**Lt. Col. Carrie A. Cox** – '99 – Honored at a Promotion ceremony at War Memorial Chapel

## 2000s

**Bryan Katz** – '00 – Awarded the Eugene Arnold Jr. Outstanding Individual Activity Award by the Virginia Section of the Institute of Transportation Engineers (VASITE)

**Kevin Heaslip** – '02, '03 – named Associate Director of Hume Center

**Paolo Scardina** – '04 – Received the Panhellenic Council Teaching Recognition Award

**Abraun Quesenberry** – '04 – Named President of Quesenberry's, Inc.

**Christine Potocki** – '08 – Received the Eugene Arnold Jr. Outstanding Young Member Award by the Virginia Section of the Institute of Transportation Engineers (VASITE)

**Matthew Davis** – '08 – Received the Maryland Section Young Civil Engineer of the Year award

**Lindsey (Bertholf) Fasnacht** – '09, '10 – Married Charles Fasnacht on May 21, 2016

**Nathaniel Krause** – '10 – Received the Maryland Section Young Civil Engineer of the Year Award

**Claire White** – '10, '11 – Joined CEE as an Assistant Professor of Practice

**Lt. Joshua Dworkin** – '11 – Named Hokie Hero for the football game against Notre Dame

**U.S. Air Force Capt. Andrew Lott** – '11 – Named Hokie Hero for the football game against Pittsburgh

**Dan Vilhauer** – '13 – Promoted to Associate in Dewberry's Richmond office

**Marcus Aguilar** – '13, '16 – Joined CEE as a Research Scientist



Pictured from left to right: Nathaniel Krause, David Dee, Matthew Davis



U.S. Air Force Captain Andrew Lott was the Hokie Hero of the Pittsburgh game



Bryan Katz and Christina Potocki received awards from VASITE

# Student Organization Updates 2017

## American Society of Civil Engineers (ASCE)

Before the semester even began, officers were at the CEED O-Show, an exhibit for first year engineering students in the CEED Mentoring Program and the Hypatia/Galileo programs. ASCE signed up over 60 students at the event.

Meeting speakers have included Sam Easterling, Skip Notte, Peter Jackson, Stephen Steward, and Courtney Beamon.

This year, ASCE evolved its mission statement to include an objective to create more networking opportunities between its members and through professional speakers. The first of these was a design challenge meeting where members formed groups and completed two design problems. Those problems were to design a Walmart on Prices Fork Road and to reroute an interstate. The point of the challenges

was to foster group work and connections between members and exemplify that design challenges often don't have an exact answer that satisfies all requirements.

ASCE scheduled many field trips this year. In the fall, members returned to New River Gorge Bridge and were harnessed to walk underneath the bridge. Upcoming trips include a tour of the steam tunnels beneath campus, a trip to the I-77 tunnels, and a tour of the hydroelectric dam at Claytor Lake.

ASCE's outreach program, Concrete for Kids, continues to gain momentum. The group travels to local schools to teach about civil engineering.

Finally, ASCE's design teams have been hard at work preparing for the VA's conference this year at ODU!



*ASCE Members at the New River Valley Gorge*

## American Railway Engineering and Maintenance-of-Way Association (AREMA)

The American Railway Engineering and Maintenance of Way Association is a student-run organization with the goal to connect the rail industry to students at Virginia Tech. The national mission of AREMA is to develop and advance both technical and practical knowledge and recommend practice pertaining

to the design, construction, and maintenance of railway infrastructure.

The Virginia Tech chapter of Arema sets itself apart from other chapters across the country because of our connection with railroad research through the Center for Vehicle Systems and Safety at Virginia Tech.

We host a variety of events every year, averaging two or three each semester. Guest speakers and company informational sessions are the most popular events that the group leads.

The companies that are incorporated range from class one railroads such as Norfolk Southern and Union Pacific

to public corporations such as Amtrak. They have strong relationships with these companies due to the broad alumni base as well as the group's consistent effort to make their presence known on campus.

## Alliance of Transportation Engineering Students (ATES)

The Alliance of Transportation Engineering Students (ATES) continues to drive engagement between students and professionals by hosting a variety of company information sessions throughout the school year including visits from Dewberry, Kimley-Horn, and Gorove-Slade. These sessions allow students to both learn from professionals and potentially begin employment conversations.

In March 2016, ATES hosted the Virginia Section Spring ITE Meeting at VTTI here in Blacksburg. At this meeting our Traffic Bowl Team extended the state winning streak by defeating UVA to advance to the annual Southern District ITE Meeting held in April in Nashville, Tennessee. The team fell short in Nashville but will return this year for another opportunity.

One of the main goals of ATES is to encourage social and professional interaction among transportation students interested in transportation careers or graduate school. Through a variety of social events held throughout the year, students in the different disciplines of air



transportation, mobility, safety, design, and infrastructure were able to come together to share insights and perspectives.

# Student Organization Updates 2017

## American Water works Association (AWWA) and Virginia Water Environmental Association (VWEA)

The graduate student chapter of VA AWWA/VWEA had an impressive year. Members participated in activities of the chapter and were engaged for the complete calendar year.

Student design teams continued their winning streak at the conferences organized by VWEA and AWWA. Virginia Tech showed a solid presence at WaterJAM, an annual event jointly hosted by VAAWWA and VWEA. The student team participated and won both design and poster competitions. The winner in the water category will present their poster at the annual conference and exhibition in 2017.

The event also provided the opportunity for technical growth of members with various workshops, projects, and facility

*Student members at WaterJAM 2016*



tours. Members had the chance to interact with professionals for the industry at a Young Professionals (YP) meet-up.

The chapter organized several industrial talks by professionals in the water and wastewater field. These talks give members an opportunity to interact directly with professionals and get firsthand knowledge from leaders working in the industry.

There were several events organized in collaboration with other student organizations helping students to interact and socialize with others from multiple disciplines. VA AWWA/VWEA collaborated with ASCE and EWRI/COPRI to jointly host industrial talks and participate in service activities. They held a stream clean-up event that covers a vast area in and around campus. The groups also

participated in The Big Event at Virginia Tech to give back to the surrounding community.

Some new activities that the chapter has planned include engaging middle-school students in a Water Tower competition. The students will build a water tower to supply water to the local community. The idea is to educate students about water fields while engaging them in a fun activity. We are also planning to hold a seminar for undergraduate students interested in attending graduate school to

help them better understand the application process and to answer any questions they may have about attending graduate school.

This year, Dr. Jason He has joined as the new faculty advisor for the chapter.

## Chi Epsilon

In fall 2016, Russell Green was initiated as the new faculty advisor for the chapter. The previous advisor, Bill Knocke, had served Chi Epsilon for many years and still continues some involvement with the chapter.

The group organized the annual senior composite photos for the department and continues to offer free tutoring in sophomore and junior level classes for all civil engineering

students. In addition, Chi Epsilon members took part in an outreach activity at a local elementary school. The program included a presentation for the students to explain the basic ideas of engineering, followed by a hands-on activity in which teams of 3-5 students used drinking straws, paper, and masking tape to construct bridges, followed by a strength competition amongst

the teams.

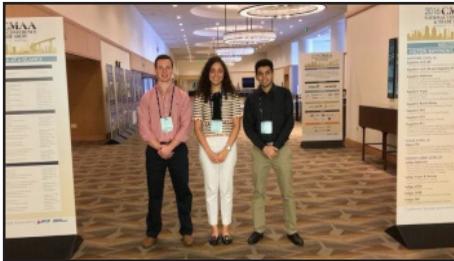
In fall 2016, Mr. Michael Biscotte was initiated as a chapter honor member. He is a professional engineer who serves as a Senior Engineer for Radford University's Facilities Design and Construction group. In the spring of 2017, Mr. Douglas Fahl will be initiated. He is President and Owner of D.R. Fahl Consulting and has over 50 years of experience in civil engineering.

The initiation ceremony will take place on April 24th and the officers are very excited to welcome new members, as well as another chapter honor member into Chi Epsilon.

# Student Organization Updates 2017

## Construction Management Association of America (CMAA)

This year, CMAA devoted a considerable effort to planning and executing a variety of events to further members' professional development and advancing the industry in academia.

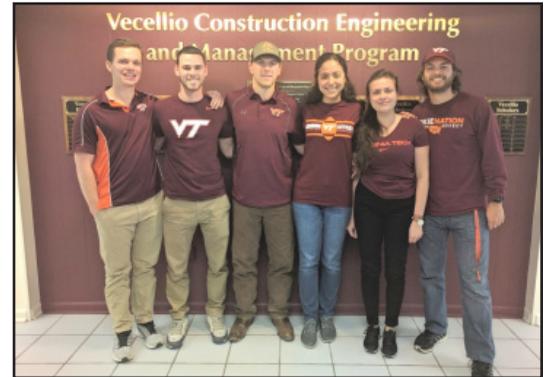


Some highlights include the visit of distinguished guest John Morse, CMAA National Capital Chapter Liaison for student chapters. Three students participated in the Rising CM Conference in San Diego, California. Two VT students, Maria Nieves-Melendez and Ann Skorulski, won the CMAA Foundation Scholarships among a pool of well-qualified applicants.

The chapter hosted a career fair

workshop for members to learn about writing a resume, networking and practicing interview techniques.

In November, the group attended the STEAMup Carnival organized by the Myers-Lawson School of Construction. The event seeks to inspire children



to the science, technology, engineering, art, and mathematics fields.

## Geotechnical Student Organization (GSO)

The chapter continued to participate in outreach by constructing small mechanically stabilized earth walls with students at Northside Middle School in Roanoke.

Through participation in the 2016 GeoStructures Conference in Phoenix, Arizona, the GSO continued to foster ties between members and the

wider geotechnical community. The organization's hallmark event was the Virginia Tech Geotechnical Alumni Reception, which had over 60 participants.

GSO members were also fortunate to witness the construction of a large mechanically stabilized earth wall in Blacksburg thanks to Pinnacle Design/Build Group. It

was a good chance for them to connect theory to practice right in Blacksburg.

The group continued to support its members academically and socially, encouraging faculty-student interaction and plenty of fun inside and outside the Ozawa Library.



## EWRI/COPRI

Through the 2016-2017 academic year, the chapter has held four seminars with speakers across campus and from industry. Dr. Julie Shortridge from the Biological Systems Engineering department talked about how climate change impacts water resources. Dr. Heng Xiao from the Aerospace and Ocean Engineering department presented on his fluid dynamics research in ocean engineering. Erin Rooney from the HDR engineering consulting firm visited the chapter to open up a dialogue between the students and the professionals on how COPRI can better serve students' needs.

One outreach event was organized and two more are

in the works. In the fall, the chapter collaborated with the ASCE undergraduate student chapter and AWWA/VWEA graduate student chapter to carry out an annual stream cleaning event on campus. In the spring, a wave flume demonstration is planned for the Kids' Tech University to illustrate basic concepts of surface waves, tsunamis and erosions. A field trip to Virginia Beach is also being planned for the chapter.

The chapter offered a total of \$500 in travel scholarships to students presenting at conferences.

Selected officers also attended the COPRI Council of Committee/Chapter Chairs Meeting in Jacksonville, Florida

### Wave flume demonstration at a Kids' Tech University event



to report on annual activities, network with chapter chairs from academia and industry, and bring back new ideas to better develop and improve chapter activities. They are already putting those ideas into use by scheduling social events and two more outreach activities for the spring semester.

# Student Organization Updates 2017

## Structural Engineering Institute (SEI)

The Virginia Tech chapter of SEI is a student organization that promotes and encourages the good practice of structural engineering among graduate students in this major. During 2016, the chapter organized events to foster the early involvement of students in the field by exposing them to national conferences and organizing guest lectures.

SEI was able to support students that were presenting their work at the Geotechnical and Structural Engineering

Congress in Pheonix, Arizona. They also were able to support students to attend the 2016 NASCC Steel Conference in Orlando, Florida.

The group also toured the new Classroom Building on campus to observe the structural components of the building.

The chapter had the honor of bringing Dr. Theodore Galambos, Emeritus Professor at the University of Minnesota, for a special presentation about bridges.

The chapter collected funds to donate to Relay for Life at Virginia Tech.

SEI is always looking to provide additional tools to contribute to the success of students enrolled in the structural engineering graduate program and it looks forward to advancing its mission in 2017.



*SEI members toured the Classroom Building on campus*

## Sustainable Land Development Club (SLDC)

With the aid of faculty advisors Kevin Young and Randy Dymond, and working closely with the LDDI Advisory Board, the Sustainable Land Development Club (SLDC) brings together students with a common interest in sustainability as it relates to land development design. The organization stays active throughout the year with a variety of professional development and social activities.

Current M.S. student Meghan Hekl served as the club's president during the 2015-16 academic year, and was joined by recent graduates Estela (Beatriz) Cruz Velasquez and Dylan Hale who served as the club's Service Project Coordinators.

The 2015-16 academic year was a busy one for the SLDC. During the fall and spring semesters, LDDI and the SLDC continued their tradition of hosting a "Land Development Career Night" on the eve of the Civil & Environmental Engineering career fair. As usual, the event was well attended and gave employers and students an opportunity to mingle outside of the career fair setting.

During the fall semester, the SLDC also hosted a football viewing party for its members for a Hokie football game.

In March, LDDI Assistant Coordinator Kevin Young led a group of SLDC students on a field trip to Northern Virginia where they toured various complex, urban development projects. The site visits were arranged by Tri-Tek Engineering and Bowman Consulting.

In April, for the fourth consecutive year, SLDC members provided stakeout surveying of the track for Virginia Tech's annual Relay for Life Event – the largest collegiate Relay event in the world. They plan to continue this for the upcoming Relay for Life in April 2017.

SLDC members also competed in an LDDI-sponsored Design Charrette and Competition.

The SLDC clearly likes to focus on service projects. It continued its partnership with the FloydFest music festival. From relatively modest beginnings in 2002, the festival has grown considerably over the past decade. With its rapid growth, festival organizers have encountered numerous challenges, including site layout,



*Kevin Murray from Tri-Tek Engineering talks with CEE student Kirk Grant during the spring 2016 LDDI field trip.*

shuttling of patrons into and out of the festival grounds, and public safety issues. In recent years, SLDC members developed a series of site maps to help festival organizers address these issues. During the 2015-16 academic year, the SLDC continued working with FloydFest organizers on the FloydFest site as well as other

festivals including the Vintage Virginia Wine Festival and the new Roanoke concert series in Elmwood Park.

# 19th Annual Alumni Golf Outing

**When:** Thursday, June 1, 2017

**Where:** Bull Run Golf Club  
3520 James Madison Hwy  
Haymarket, Virginia

**NEW Format:** Four-person Captain's  
Choice (scramble)

**Tee Time:** Shotgun start at 12:00pm

**Cost:** \$90 per golfer (covers green fees, cart,  
and cookout after golf)

Complete the attached registration form and  
mail it, along with your payment (checks  
made out to Virginia Tech Foundation), by  
**Friday, May 12** to:

Courtney Long  
Virginia Tech Civil & Environmental  
Engineering  
200 Patton Hall, MC 0105  
Blacksburg, VA 24061



## Registration Form

Golfer Name \_\_\_\_\_ Partner \_\_\_\_\_

Address \_\_\_\_\_ Zip \_\_\_\_\_ Class of \_\_\_\_\_

Daytime phone number \_\_\_\_\_ Email \_\_\_\_\_

Interested in \$100 Hole Sponsorship? \_\_\_\_\_ YES \_\_\_\_\_ NO

If YES, Company or Individual Name \_\_\_\_\_

# Show your Virginia Tech CEE pride!



From left to right: Isabelle Stern ('18), Eliese Thrush ('18), Natale Carollo ('18)

Complete the form below and mail it in to place your order. Checks should be made payable to Virginia Tech Foundation, Inc. and mailed along with this form to:

Via Department of Civil and Environmental Engineering  
 Virginia Tech MC 0105  
 200 Patton Hall, Blacksburg, Virginia 24061

Name: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Item (Circle)	Quantity	Size (XS, S, M, L, XL, XXL)	Color (Maroon or Black)
Baseball Hat (\$11.50 each)	Hats: _____	Hats: N/A	Hats: _____
Women's Polo shirt (\$28 each)	Polo Shirts: _____	Polo Shirts: _____	Polo Shirts: _____
Men's Polo Shirt (\$25 each)	Pullovers: _____	Pullovers: _____	Pullovers: N/A
Maroon Pullover (\$30 each)	Tote Bags: _____		Tote Bags: N/A
Canvas Tote Bag (\$13 each)			

