OUTLOOK

CIVIL & ENVIRONMENTAL ENGINEERING

ISSUE NO.4

INSIDE

UNIVERSITY OF DELAWARE

College of Engineering

DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING

LETTER FROM THE CHAIR

HARRY (TRIPP) SHENTON III

BCE '82, MCE '84

PROFESSOR AND CHAIR

Civil engineering holds a foundational part in the University of Delaware's academic structure. In fact, more than 100 years ago, the major accounted for almost half of the student population.

A university catalog from 1842 describes a course that includes "measuration" (i.e. measuring) and surveying. This is perhaps the first hint of engineering education at what was then Delaware College. Professor Edward D. Porter taught the first civil engineering class in 1870, a formal degree program followed in 1889, and the first civil engineering degree was bestowed in 1892. University records from 1909 indicate that 88 out of 184 undergrads majored in civil engineering; 23 of the 38 graduating seniors from the class of 1911 were civil engineers.

Over the years, civil engineering has evolved into a highly sophisticated and challenging profession with various sub-disciplines. As the profession has grown, so, too, has UD's program. Environmental engineering emerged as a core sub-discipline in the 1940s. The 1960s brought an increased emphasis on mathematics, science and mechanics—still the foundation of the present degree. Rising concern over the environment and the diversity of problems in water, soil and air led to the creation of the bachelor of environmental engineering degree in 1995 and a departmental name change to the Department of Civil and Environmental Engineering, which reflects this expanded focus.

Today, the UD student body is much larger than a century ago. And, while a smaller percentage of students are now enrolled in civil and environmental engineering (about three percent of the University's 17,000 undergraduates), they carry on a UD legacy built on academic history and progressive thinking.

Today, more than ever, owners, agencies and the profession require that engineers consider the long-term performance and environmental and societal impact of our designs. This concept must be introduced to students early and integrated throughout the engineering curriculum. Much of what the department does already supports a sustainable environment and infrastructure, but we want to do more.

This past year, the department developed a strategic plan with goals and action items in education, research and service to guide us over the next five to seven years. As part of that plan, the faculty adopted the umbrella theme of sustainability to our vision. We are developing two new minors in the department—sustainable infrastructure and environmental sustainability—which we hope to launch in fall 2013.

In this newsletter, you'll find updates about departmental events and the activities and achievements of our faculty, staff, students and alumni. Be sure to also check out our new department website (due to launch soon) where we will showcase our sustainability work and vision. And as always, please do not hesitate to contact us. We welcome your questions, concerns and suggestions.

Sincerely,

Harry (Tripp) Shenton III
PROFESSOR AND CHAIR

Content Direction
Harry (Tripp) Shenton

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Alumni return for Practitioner in Residence Day

Students learn about the doors an engineering degree will open

"Engineers are problem-solvers and the ability to bring solutions to problems is exciting," ***Teresa M. Ressel*** (CEE86, 87M), CEO of the global financial services firm UBS Securities, LLC, told undergraduate and graduate engineering students during the Department of Civil and Environmental Engineering's inaugural "Practitioner in Residence" day in November 2011.

Fellow alumnus ***George Gianforcaro*** (BCE '80) echoed her encouragement. "You can do anything you want with an engineering degree." With the skills he learned at UD, Gianforcaro started his own business, IndutexUSA, which manufactures and sells hazardous materials suits around the world.

Ressel and Gianforcaro were among five distinguished alumni who returned to campus for the 2011 event aimed at helping students realize the doors a degree in engineering can open.

Cedrick Johnson BCE '95, who was among the 2012 event's distinguished panelists this November, describes the event as a win-win for students and practitioners.

"Practitioner in Residence Day adds "practical experience" to the students' development, and I find that I personally grow when interacting with them," he said.

Other 2012 panelists included, ***Douglas M. Hutcheson***, (BCE90) PE, chief engineer for the Maryland Transportation Authority; ***Neil Jurgens***, (BCE90) vice president, Corporate Real Estate, for The Walt Disney Company; ***Jennie Saxe***, (MCE98, PhD00), State/ Congressional Liaison - Virginia U.S. EPA Region III; and ***James T. Johnson, Jr.***, PE, president of JTJ Engineers.

George Gianforcaro, II, meets with students as part of the inaugural Civil and Environmental Engineering Practitioner in Residence Day.

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Civil and Environmental Engineering

PRACTITIONER IN RESIDENCE DAY

November 15, 2012

DISTINGUISHED GUESTS WERE:

Douglas M. Hutcheson, PE
Chief Engineer
MARYLAND TRANSPORTATION AUTHORITY

Neil Jurgens
Vice President,
Corporate Real Estate
THE WALT DISNEY COMPANY

Cedrick Johnson, PE
President
ADCI

Jennie Saxe, Ph.D.
State/Congressional
Liaison - Virginia
U.S. EPA REGION III

James T. Johnson, Jr., PE
President
JTJ ENGINEERS

Roundtable discussions were held with our guests

New course teaches non-engineers about sustainable energy technologies

The Department of Civil and Environmental Engineering will offer a new course in spring 2013 entitled, "Sustainable Energy Technologies." Aimed mainly at non-engineering majors, this experimental course is intended to give students an understanding of the major sources of energy that fuel our society and how society can develop sustainable energy solutions.

Topics of discussion will include the basic science behind different energy sources, such as fossil fuels, coal and electricity, and renewable sources like wind, solar and fuel cells. Students will also learn about the environmental and economic impact of various energy sources and various energy conservation related topics. Expert guest speakers and in-class debates will complement class lectures and provide students both an anecdotal and factual view of our global energy future.

"Our goal is to teach students to become informed citizens who can understand the energy landscape and to make informed decisions about our energy future both locally and globally," said ***Michael Chajes***, professor of civil and environmental engineering, who will co-teach the course with ***Roland Heck***, an adjunct professor in the department.

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Thank you to all the faculty and staff that support the great efforts of our students! It is really wonderful to see them have such success, and they couldn't do it without your support.

-- Tripp Shenton, *department chair*

UDconnection.com

Looking for an old friend? Want to share your latest news? Searching for information on upcoming alumni events such as Homecoming? Now you can do it all in one place, ***www.UDconnection.com***.

UD and the UD Alumni Association (UDAA) have collaborated to bring alumni a vibrant online community—so register and get active! The online community allows you to search the alumni directory, post class notes, update your contact information, and see if there are any upcoming alumni events in your area. You can also take advantage of networking opportunities and ways to get involved with your alma mater!

Visit ***www.UDconnection.com*** today!

James Bailey (left) and Matthew Dove with the Mohr's Circle Award.

CEE students win GeoPrediction competition Mohr's Circle award

While most individuals want to be a part of the "inner circle," University of Delaware civil engineering students ***James Bailey*** and ***Matthew Dove*** prefer to have a stake in "Mohr's Circle."

Bailey, then a master's student, and Dove, then a senior, won the prestigious Mohr's Circle Award for their geotechnical engineering expertise at the April 2012 GeoChallenge GeoPrediction competition sponsored by the American Society of Civil Engineer's Geo-Institute. The award is named for Christiana Otto Mohr's graphical method for representing stresses in soil dating back to 1882.

Bailey and Dove used software created by CEE professor ***Dov Leshchinsky*** to analyze raw data and predict the subsurface soil settlement that would be caused by the construction of a highway soil embankment.

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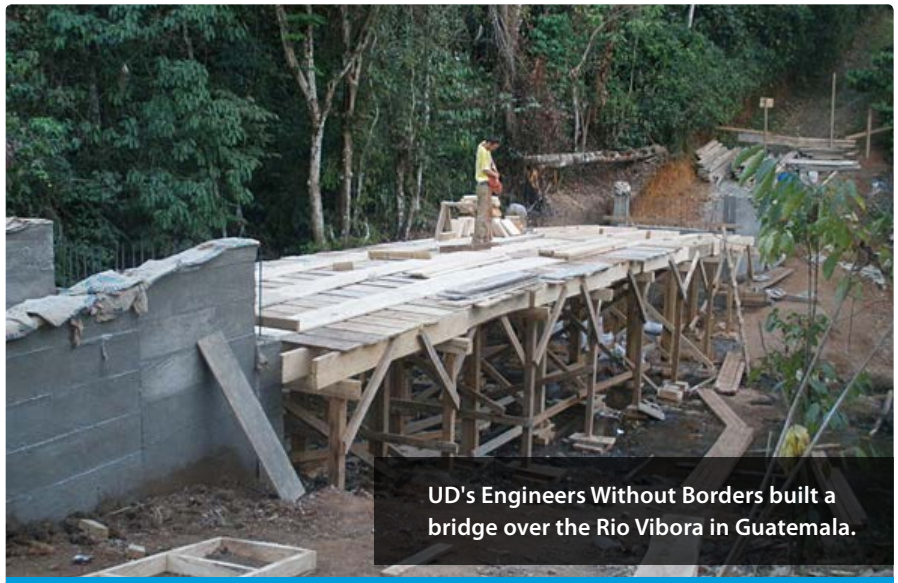
Bridge-tastic: UD Engineers Without Borders team builds bridge in Guatemala

Six members of UD's ***Engineers Without Borders*** (EWB) student chapter spent winter session constructing a concrete bridge over the Rio Vibora—now colloquially renamed the Delaware River in recognition of their efforts—connecting the village of San Jose Petacalapa with bordering farmland in San Marcos, Guatemala.

Allen Jayne, assistant professor of civil and environmental engineering, served as the project's faculty technical adviser and provided guidance for structural design and drawing preparation associated with the bridge. UD undergraduate and graduate students provided eager engineering minds, muscle and logistical support to coordinate their efforts with EWB's national organization, construction personnel and community representatives in Guatemala.



UD's Engineers Without Borders built a bridge over the Rio Vibora in Guatemala.

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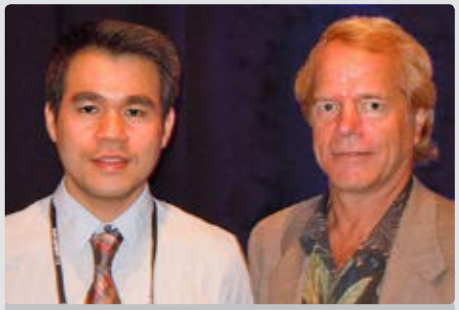
Doctoral candidate recognized for novel method modeling the flow of water in levee foundation soils



UD doctoral candidate Sittinan Benjasupattananan (left), pictured with Peter Nicholson, student outreach committee chair for the Association of Dam Safety Officials.

Doctoral candidate ***Sittinan Benjasupattananan's*** unique analytical modeling approach may serve as a practical tool for engineers to simulate both two- and three-dimensional seepage behavior beneath levees. When incorporated into a risk-based analysis approach, he says, this new analytical model can help to mitigate the risks associated with levee infrastructure.

His paper describing his novel method for modeling the flow of water in levee foundation soils earned national recognition from the Association of State Dam Safety Officials, along with an invitation to present his research at the 2012 Dam Safety annual conference held this fall in Denver.

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UD scholar awarded IAFD scholarship

University of Delaware Scholar ***Daniel Cacciola***, a graduate student in the Department of Civil and Environmental Engineering, is one of 14 students nationwide to earn a scholarship from the International Association of Foundation Drilling (IAFD).

Cacciola is investigating construction specifications for intelligent compaction of soil involved in supporting the built environment in which people live, work and play. He is also researching design solutions to improve energy consumption associated with private and commercial heating and cooling.

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Meehan named Bentley Systems Incorporated Chair of Civil Engineering

Associate professor ***Christopher Meehan's*** recent selection as the Bentley Systems Incorporated Chair of Civil Engineering is a prime example of how alumni are helping make UD a magnet for industry-renowned educators and researchers.

This new term chair is funded through a generous gift from Bentley Systems, Incorporated, an Exton, Pa., software firm founded in 1984 by brothers ***Keith Bentley***, a 1980 UD graduate with a bachelor's degree in electrical engineering, and ***Barry Bentley***, a 1978 UD graduate with a bachelor's degree in chemical engineering.

Meehan has developed a nationally recognized research program in geotechnical engineering at UD, which entails solving problems involving soils and rock. The named chair will strengthen the geotechnical engineering program within the department, and, remarks department chair ***Harry (Tripp) Shenton, III***, is an "important and timely gift that will have a lasting impact in the department and help increase visibility for our programs."

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IN MEMORIAM

Holocaust survivor ***Arnold D. Kerr,*** professor emeritus of civil engineering and an internationally renowned expert in railroad engineering who advised many UD master's and doctoral students, died May 27, at the age of 84.

Kerr came to the University of Delaware in 1978 as a professor of civil engineering, where he taught courses in engineering mechanics and railway track engineering. In 1980, he and his wife founded the Institute for Railroad Engineering and gave continuing education short courses to hundreds of engineers over 24 years. He retired from UD in 2004.

As a child during World War II, Kerr and his family fled his homeland of Poland for Lithuania and were eventually sent to a medieval ghetto. As a teen, he was sent to concentration camps for hard labor and forced to join the infamous death march to the Rieben death camp in the bitter winter of 1945. He came to the United States in 1954 – the only member of his family to survive the Holocaust.

Department chair ***Harry (Tripp) Shenton, III***, describes Kerr as an "outstanding teacher, scholar and adviser… and impassioned teacher who continually strived to instill in students his love and fundamental understanding of mechanics."

Shinya Kikuchi, former professor of civil and environmental engineering, died on December 6, 2012, at age 69.

An accomplished transportation expert, scientist and educator, Kikuchi taught courses and performed research in urban transportation planning, public transportation systems, traffic engineering and highway design and logistics at University of Delaware from 1982-2005.

A native of Kobe, Japan, he received his bachelor's and master's degrees from Hokkaido University in Sapporo. He earned his doctoral degree in transportation systems engineering at University of Pennsylvania, after which he spent eight years in industry before joining UD. From 2005-2012, he served as the Charles E. Via Chair Professor of Transportation Systems Engineering and director of the Civil and Environmental Engineering Program at Virginia Polytechnic Institute of Technology. Kikuchi was a member of the Transportation Research Board and several other professional societies. He authored nearly 30 papers and lectured widely at universities in Japan, Italy, Finland, among other countries. He co-founded the Annual Helsinki Summer School of transportation at Aalto University, in Helsinki, Finland, where, in 2010, he received an honorary doctoral degree for his research and lecturing activities. He is survived by his wife of 37 years, Laura.

--Photo: Virginia Tech website.

CP Huang receives AAEE's Gordon Maskew Fair Award

Chin-Pao Huang, Donald C. Phillips Professor of Civil and Environmental Engineering and an internationally recognized leader in environmental physical chemistry, received the 2012 Gordon Maskew Fair Award from the American Academy of Environmental Engineers (AAEE) at the organization's awards luncheon held April 26 in Washington, D.C. The award recognized his contributions to environmental engineering by his exemplary professional conduct, acknowledged achievements in engineering and valuable contributions to the world's environmental quality control.

This is Huang's second Gordon Maskew Fair Award; his first was in 1999 for outstanding service in engineering education from the Water Environment Federation. His career honors also include the Wesley H. Homer Award from the American Society of Civil Engineers and the Francis Alison Award, the highest faculty honor bestowed at UD.

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Meehan, Schumacher achieve PE certifications

Associate professor ***Christopher Meehan,*** Bentley Systems Incorporated Chair of Civil Engineering, and assistant professor ***Thomas Schumacher*** have joined the elite ranks of Civil and Environmental faculty members licensed as professional engineers.

While it is common for practicing engineers who practice traditional engineering design or who review and stamp civil engineering projects to seek professional licensure, faculty members in academia do not routinely seek the designation. Even more impressive is that Meehan and Schumacher are both junior faculty members in research intensive academic positions. The addition of Meehan and Schumacher brings the ranks of PE certified faculty in the department to 10.

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Herbert E. Allen, professor emeritus in the Department of Civil and Environmental Engineering with a joint appointment in the College of Earth, Ocean, and Environment, recently presented a seminar entitled ***"Ecotoxicity of Nickel and Copper in Soil: The Terrestrial Biotic Ligan Model"*** at Yangtze University and Wuhan University in China. During his stay, he was also appointed a visiting professor at Yangtze University.

Allen's expertise includes environmental chemistry, fate and effects of pollutants in water, sediment and soil environments, bioavailability of trace metals, development of environmental standards, ecological risk assessment and analytical chemistry.

During his career he has authored 13 books, more than 110 journal articles and greater than 90 non-refereed publications. In 2006, he was named one of the Highly Cited Researchers by the Institute of Scientific Information.

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Prof. Steve Dentel (left) and two of his students Solmaz Marzooghi (center), a graduate student, and Tracie Ervin (right), an undergraduate, working in a DuPont Hall laboratory. Dentel was recently recognized by the Gates Foundation for his work on water filtration.

Steve Dentel

Professor, Civil & Environmental Engineering

Gates grant helps Steve Dentel explore fabric's ability to protect drinking water

A $100,000 grant from The Bill and Melinda Gates Foundation Grand Challenges Exploration Fund is helping Prof. ***Steve Dentel*** explore his idea of using raincoat fabric to protect drinking water in developing countries.

Dentel believes a breathable textile that allows water vapor to escape through it offers the potential to keep pathogens, germs and parasites from human waste out of drinking water – a perfect match for the grant, which targets projects that show promise in tackling global health issues where solutions do not yet exist.

Dentel and undergraduate researcher Tracie Ervin are using the low-tech approach to contain waste and its harmful organisms. Its potential could not only protect wells and groundwater in rural areas, but also keep contaminants out of crops in areas with high water tables or where houses are built above the water, and protect urban workers who collect waste.

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Cleaner water: Novel membrane helps remove perchlorate from drinking water

An innovative new membrane, synthesized in the laboratory of Prof. ***C.P. Huang***, offers a breakthrough development in clean technology to remove perchlorate from water. It is the first attempt to quickly and easily reduce low-levels of perchlorate to non-toxic chloride by combining electrodialysis and an electrochemical reaction in one system.

Perchlorate is a chemical byproduct found in fireworks, fertilizer, hazard flames and matches, as well as in rocket fuel, munitions and propellants used in the defense industry.

While valued in laboratory experiments because it does not react with many other chemical species in water, perchlorate is an emerging contaminant that is known to interfere with the metabolism of the thyroid gland in humans. Toxic even at low levels, on the order of four parts per billion (ppb), the U.S. Environmental Protection Agency estimates that perchlorate contamination has affected 15 million people in the United States via drinking water.

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An innovative new membrane, synthesized in the laboratory of UD's C.P. Huang, offers a breakthrough development in clean technology to remove perchlorate from water. Pictured are (left to right) high school student Nagwa Nukuna, undergraduate student Lorraine Salamanca, Prof. Huang and graduate student Poyen (Kevin) Wang.

Poyen (Kevin) Wang, a graduate student working with Prof. C.P. Huang, assembles a membrane that will remove perchlorate from drinking water.

Reducing energy consumption: Fulbright Scholar studies geothermal energy solutions in Finland

Associate professor ***Christopher Meehan***, Bentley Systems Incorporated Chair of Civil Engineering, is investigating promising geothermal energy solutions for heating and cooling residential, commercial and institutional buildings as part of a 2012-13 ***Fulbright Scholarship*** at Tampere University of Technology in Finland.

Meehan selected Finland because, while the energy consumption patterns are higher for Finnish industrial and construction industries, the country possesses a greater focus on renewable energy technologies than is typical in the U.S., particularly in its use of geothermal heat pump (GHP) systems.

One of the only forms of renewable energy that is available on-demand, GHPs are site-specific and do not require additional electrical transmission infrastructure to deliver benefits to a given building or group of buildings. Two primary obstacles to widespread adoption of GHP technology by consumers are the relatively high "up-front" cost and a lack of consumer confidence in the technology.

Meehan plans to combine GHP technology with building foundation systems to reduce these up-front costs.

"Energy consumption is among the most significant problems facing humanity in the next century," Meehan said. "It is imperative that civil engineers consider the direct and indirect costs associated with heating and cooling over the useful life of a structure as part of any sustainable building design."

UD's Christopher Meehan (right) conducts field work.

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UDRF grant helps Thomas Schumacher evaluate acoustic emission for assessing integrity of aging bridges

Assistant professor ***Thomas Schumacher*** is evaluating the latest quantitative methodologies in seismology for potential incorporation into bridge monitoring systems, with support from a University of Delaware Research Foundation (UDRF) grant. The grant seeds proof-of-concept research for investigators early in their faculty careers.

Schumacher's work, "Quantitative Acoustic Emission Monitoring for Reinforced Concrete Bridges," evaluates non-destructive testing techniques such as acoustic emission for assessing the integrity of aging bridges. As one of 11 grant recipients, he is also conducting a series of lab tests on reinforced concrete bridge beams, as one of the 11 grant recipients.

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State of Good Repair

Sue McNeil leads efforts with Rutgers University to improve the nation's transportation systems

University of Delaware civil engineer Sue McNeil, who directs the University of Delaware's Transportation Center (UTC), is leading efforts with Rutgers University to improve the nation's transportation systems.

Roads and infrastructure are aging, a fact that poses challenges in maintenance, upgrading and design for transportation planners. According to McNeil, without proper decision making models, the crumbling infrastructure could also pose a risk to the economy.

UD is part of the Rutgers consortium that also includes Princeton University, Columbia University and the New Jersey Institute of Technology. Rutgers' Center for Advanced Infrastructure and Transportation (CAIC) received a $3.5 million grant from the U.S. Department of Transportation (DOT) earlier this year to improve America's infrastructure as a Tier I University Transportation Center.

Under the grant, UD will receive $300,000 per year for the life of the project. Along with McNeil's work, funding also supports three other interdisciplinary projects:

- ***Nii O. Attoh-Okine***, professor of civil and environmental engineering, will analyze performance data of pavements;
- ***Pam Cook***, professor in the Department of Mathematical Sciences, and Attoh-Okine will study modeling and simulation techniques to promote improved lifecycle of polymer modified asphalt; and
- ***Jennifer McConnell*** and ***Thomas Schumacher***, both CEE professors, will explore non-destructive testing methods for structural health monitoring of bridges.

The grant also supports ***Diane Wurst***, a UD graduate fellow and structural engineering student investigating strategies to extend the life of bridges. Working under the guidance of McConnell, Wurst is studying whether safety redundancies built into bridges actually perform as expected and enhance the life of the structure.

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Clean Bill of Health: UD researchers capture baseline data about structural health of Indian River Inlet Bridge

Near midnight on Nov. 28, six trucks weighing roughly 30 tons each crawled across the Indian River Inlet Bridge, while data was collected from the nearly 150 sensors embedded in the 1,750 foot cable-stayed structure. The trucks were driven in pre-determined patterns with precisely weighted loads. Data samples, collected 125 times per second, measured the strain, vibrational response, movement, temperature, wind speed and pitch of the bridge deck.

It is the second of four calibration tests UD researchers ***Harry "Tripp" Shenton***, ***Gary Wenczel*** and ***Michael Chajes*** will perform over the next two years, in collaboration with the Delaware Department of Transportation.

"It's sort of like a physical for the bridge, and will create a baseline for the bridge's structural health," explained Chajes.

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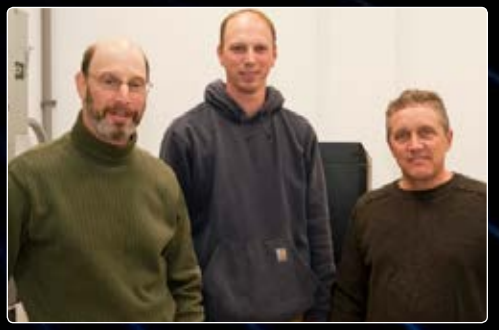
UD's Gary Wenczel checks the data.



UD researchers (from left) Michael Chajes, Gary Wenczel and Tripp Shenton.

Pictured: (left to right) The Hon. David B. McBride and Kris C. Manning receive alumni awards from Harry "Tripp" Shenton, department chair, during an alumni reception June 1.

CEE honors alumni during Alumni Weekend

Civil and Environmental Engineering welcomed more than 30 alumni back to campus June 1 at its inaugural alumni reception during the University's Alumni Weekend.

"Many of our alumni work within a few hours of Newark. With the success of UD's Alumni Weekend, we felt this was a good time to hold our own event," said ***Harry "Tripp" Shenton***, department chair.

The department also recognized two exceptional alumni during the reception for their professional and community contributions.

The Hon. ***David B. McBride*** '72, '75, former member of the Delaware House of Representatives and current state senator, was awarded the Outstanding Alumni award for leadership contributions to key environmental legislative initiatives including clean air, open space, brownfield and recycling; for exemplary insight into the importance of combining technical and engineering skills with broader human values and needs; and for profound dedication to Delaware citizens and the state's sustainability goals.

Kris C. Manning '98, vice president of Clark Construction Group, LLC, received the Citation for Outstanding Achievement award in recognition of his dedicated leadership to the profession, innovation and team building in executing major construction projects, for community service and for serving as a role model and mentor for young engineers.

Delaware Engineering Society
Progress through Collaboration

Distinguished honors: UD alumni earn top state engineering awards

Two CEE Blue Hens hold top honors from the Delaware Engineering Society.

Guy F. Marcozzi '85, '88, (pictured right) adjunct professor in the College of Engineering and member of the Department of Civil and Environmental Engineering's Advisory Committee, is the 2012 Engineer of the Year.

Jason N. Hastings '00 and '01, a supervising engineer in bridge design with the Delaware Department of Transportation, is the 2012 Young Engineer of the Year.

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Strogen presents at international forum

Bret Strogen, PE, recently participated in Green Enterprising and University Innovation for a Sustainable Future, a workshop at the All-Russia Science Festival in Moscow, Russia.

Strogen, who earned his bachelor's degree in environmental engineering at UD in 2003, completed his doctoral degree at the University of California, Berkeley, in May 2012. His doctoral research there focused on analyzing the non-obvious greenhouse gas emissions from building and operating new infrastructure for biofuels, and estimating the unintended financial costs and air pollution that result from public policies requiring ethanol to be transported distances away from producers. While abroad, Bret also presented his doctoral research at the *Asia-Pacific Meeting of the International Society for Industrial Ecology* (ISIE) and the *World Resources Forum* in Beijing, China. He is currently a postdoctoral scholar at the Energy Biosciences Institute in Berkeley, CA.

Bret Strogen, (pictured left) alongside professors from Sweden, Norway, Moldova and Russia at Moscow State University, Oct. 14.

Q & A

Cedrick Johnson (BCE '95)

PAYING IT FORWARD

The ***Resources to Insure Successful Engineers (RISE)*** program played a deciding factor for ***Cedrick Johnson*** BCE'95 and his parents in choosing UD for his engineering studies. Now, the president of Airport Design Consultants, Inc., in Columbia, Md., Johnson is paying forward the help he received through RISE, establishing the ***Raymond Thomas Johnson Scholarship*** in memory of his father to help future engineers.

Q. What impact did UD's Civil & Environmental Engineering program have on your life?

A. The Civil & Environmental Engineering program had a significant impact on my education and the types of career choices I had within the discipline. College needs to be a microcosm of life, and introduce students to what the real world will be like once they graduate. UD effectively prepared me for that future.

Q. Are there specific professors or fellow CEE students who particularly challenged, inspired or mentored you?

A. Judith Carberry and Ardeshir Faghri generated my interest in transportation and environmental engineering. I was able to tap on those relationships and their experience when I started with my first job, as well. The challenges I faced here prepared me to succeed in the real world. I will always be thankful to UD for that gift.

Q. Why did you establish a scholarship fund for RISE students in memory of your father?

A. My mother and father were strong influences in my life, and I will always be appreciative to them for that. When I graduated, my dad encouraged me to make sure I used my degree to make a difference and not just be satisfied with the degree. When a person has a significant influence in your life—like my dad had on mine—you don't want that to ever be forgotten or taken for granted. I feel like he continues to make a difference with this scholarship fund.

Q. RISE is clearly a very worthwhile program to you. Explain what it means for an engineering student?

A. There are three key factors to success: talent, desire and support. All of our students have talent; they all need to show their desire; but support varies for each. While most of us look to our parents, family and friends, there are times that we need additional support when dealing with challenging aspects of our lives. RISE provides that resource for an engineering student to overcome the obstacles that can exist when you are working towards a high achievement. The combination of leadership, peers and resources contributed by RISE makes a significant impact to ensure success among our engineers.

Q. Thoughts for other alumni who might be considering giving back to UD?

A. It is important to never forget who and what contributed to your success. You can certainly feel good when you have participated in the success of a student, ultimate improvement in our engineering school, and the success of UD!

Alumni establish student scholarship in honor of *Dov Leshchinsky*

Some professors make such an impact on their students that, even years down the line when the students are fully established in their own careers, they are compelled to reach out and not only say thank you, but to pass that inspiration along to up-and-coming engineers, as well. That's just what the principals of Geo-technology Associates, Inc.—among them three UD College of Engineering alumni privileged to study with Professor ***Dov Leshchinsky***—chose to do upon learning of their mentor's impending retirement. Leshchinsky taught his last course at UD this fall.

Geo-Technology Associates, or GTA, an environmental consultation and geotechnical engineering firm with offices throughout the mid-Atlantic, established a term scholarship in honor of Leshchinsky, to be awarded to a rising senior currently majoring in civil or environmental engineering with a primary focus in geotechnical engineering.

Solutions to real-life problems

Meghan Lester, P.E., MCE '05, is vice president of GTA in New Castle, Del. She worked full-time at GTA while pursuing her master's degree at night, and recalls specifically working her course schedule around the chance to take a class with Leshchinsky. "Everything in his class was a real-life problem," she reminisces. "All students were given different problems and we had to find our own solution to our projects. His approach to teaching was great because you could apply it to a real job."

Lester's GTA colleagues ***Christopher Reith***, P.E. BCE '89; MCE '96, also a vice president of GTA in the New Castle office, and ***J. Patrick Klima, III*** BCE '86 , GTA's president of site engineering at the company's Laurel, Md. location, also studied with Leshchinsky and acknowledge his impact on their careers. The company employs several Blue Hens among its 190 engineers, scientists and technicians.

Leshchinsky's impact on GTA engineers is a microcosm of that on engineers worldwide. In fact, the renowned expert in soil mechanics, slope stability engineering, reinforced soil, geosynthesis, foundation engineering and soil behavior, mentored and inspired engineering students and practitioners locally in his Newark, Del., classroom, and worldwide through UD's College of Engineering Outreach Program. For well over a decade, he traveled throughout the U.S., Europe and Latin America—even to Vietnam—where he taught educators and practitioners about the design and use of geosynthetic reinforced soil, a construction material composed of sheets or grids of polymeric materials. In 2010, he was honored by the American Society of Civil with the prestigious Martin S. Kapp Foundation Engineering Award.

Developing strong engineers

"When we learned of Dov Leshchinsky's retirement, we thought establishing a scholarship in his honor would be a great way to get involved with and give back to the University of Delaware by enabling students to apply their skills in a daily setting to gain broader knowledge," Lester explains. "He combined both theory and hands-on procedures and gave practical advice for taking technical engineering skills into the field. While future students won't have the opportunity to study directly with Leshchinsky now that he is retiring, with this scholarship we hope to carry on the inspiration that he was to those of us privileged to study with him."

Inaugural recipient

The scholarship provides $2,500 each year. The inaugural recipient for the 2012-13 academic year is ***Olivia Dalton***, who studies under ***Christopher Meehan***, Bentley Systems Incorporated Chair of Civil Engineering.

Dalton currently serves as president and team leader of UD's Geo-Institute, a student organization in which CEE students compete against other colleges to build a model retaining wall. As an undergraduate, she was part of the 2010 team, co-advised by Leshchinsky and Meehan, which took top honors in the American Society of Civil Engineers Geo-Challenge Student Competition on Mechanically Stabilized Earth Wall Construction.

DeAscanis family scholarship encourages Delaware students to pursue civil engineering at UD

Colmcille DeAscanis (BCE96) and his wife, Stephanie BSE VT 2000, have supported annual scholarships in the past to help give back to the university that he credits with having "a tremendous amount of influence in all aspects of my life." Now the couple has permanently endowed a fund in the family's name to support a civil and environmental engineering major who resides in Delaware.

"My UD education and experience has benefited me greatly, fostering my growth academically, professionally and socially," Colm reflects.

"The financial assistance I received from scholarships made it possible for me to live on campus and get the full experience of campus life," he continues. "Together with my wife, we established a scholarship fund to provide Delaware students an opportunity to share in the enjoyment and success that was afforded to me. In naming the scholarship in honor of my algebra teacher, Sr. Marie Lauber, we formally recognize the proud tradition of our Catholic priests and nuns who have been instrumental in educating our family and so many others. I want this scholarship to act as a motivator for Delaware high school students to stay in-state and pursue civil engineering, so they may benefit (as I have) from UD's excellent engineering program."

Colm, who is a UD Presidential Citation (2010) honoree, is president and CEO of CDA Engineering in Wilmington, Del. A civil engineering firm specializing in land development, civil site design, water resources and construction services, CDA is known for its use of a more natural low-impact design approach, which guides the design, construction, operations and maintenance of green buildings and land development, allowing site design to work in concert with nature.

> *"I want this scholarship to act as a motivator for Delaware high school students to stay in-state and pursue civil engineering, so they may benefit (as I have) from UD's excellent engineering program."*

You, too, can make a significant impact by giving back to the Department of Civil & Environmental Engineering.

For information on creating your own scholarship, please contact ***Armand Battisti****, director of Development, at* ***(302) 831-7273*** *or by email to* ***aab@udel.edu****.*

CIVIL AND ENVIRONMENTAL ENGINEERING
Alumni Golf Outing & Alumni Reception

Friday, May 31, 2013
Deerfield Golf & Tennis Club
Newark, Delaware

All will be held in conjunction with Alumni weekend. The golf outing will be Friday May 31, 9:00 am start at Deerfield Country Club. The reception will be 4:30-6:00 pm in 301 Dupont Hall.

For further information they can contact Marikka Beach at 302-831-2442 or marikka@udel.edu

UNIVERSITY OF DELAWARE

ALUMNI WEEKEND

MAY 31–JUNE 2, 2013

Alumni Weekend 2013
May 31 - June 2
UD Newark Campus

Registration opens in March 2013.
Tickets go fast, so register early!

Highlights:

- **Stay in the dorms** for great overnight rates!
- Reunite with friends at **Mug Night Dela-bration**
- **Reunion events** for 5th, 10th, 15th, 20th, 25th and 50th classes
- **Lunch with the Mascots** on The Green for kids and families!
- **Dozens of events** across campus sponsored by the seven colleges plus departments, clubs, athletics and more!

www.udconnection.com/Alumni-Weekend

Alumni & Friends

We wish to thank the many CEE friends and alumni who have made generous contributions over the past year. Your gifts are used for many worthwhile purposes, including support of our research and educational programs.

Please visit www.engr.udel.edu/alumni to learn how you can make a difference. To make your gift today, click ***Donate*** and if you wish to designate your gift to CEE, select other from the list provided and specify Civil and Environmental Engineering.

You may also forward your gift to:

Development & Alumni Relations Office
83 East Main Street, 3rd floor
Newark, DE 19716
Attn: Gifts Processing

2013 Reunions at UD

VOLUNTEERS ARE NEEDED

If you're interested in volunteering time to help make your reunion celebration extra special, please contact Alex Hoffmaster at arhoff@udel.edu or 302-831-6340.