



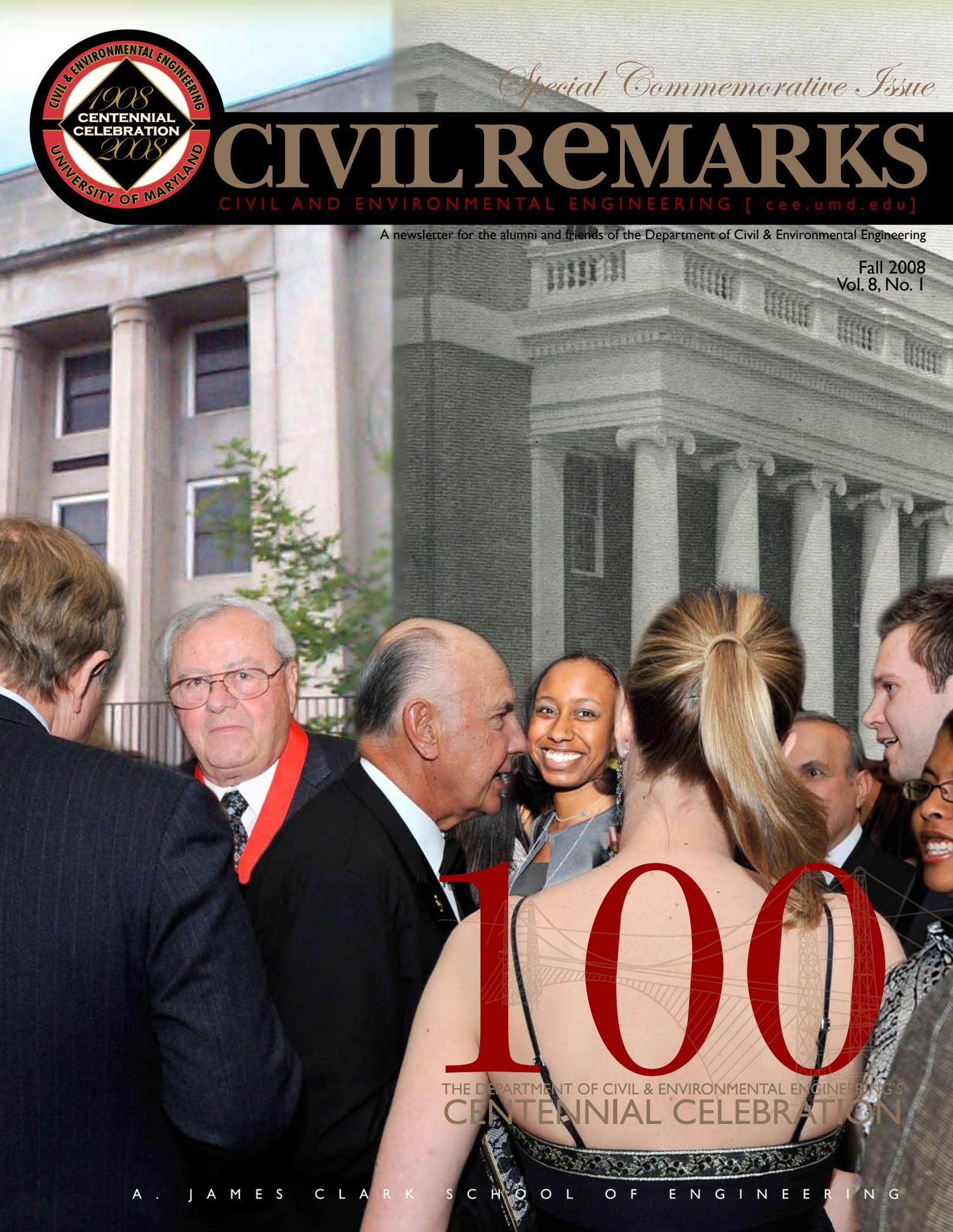
Special Commemorative Issue

CIVILREMARKS

CIVIL AND ENVIRONMENTAL ENGINEERING [cee.umd.edu]

A newsletter for the alumni and friends of the Department of Civil & Environmental Engineering

Fall 2008
Vol. 8, No. 1



1000

THE DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING'S
CENTENNIAL CELEBRATION

A . J A M E S C L A R K S C H O O L O F E N G I N E E R I N G



Left: Ali Haghani, chairman of CEE welcoming the Centennial Gala attendees

future of civil engineering to the gala. Of course, for those who have not purchased a copy yet, our book *Reflecting on Our Past*, is an opportunity to savor the occasion and the accomplishments of CEE during the past 100 years.

People make CEE what it is. So, bringing together faculty, staff, students and alumni during this celebration was very rewarding. Our current students attending the gala had the opportunity to interact with our alumni, sharing Maryland stories, as one student put it. This coming together of the past and the future was really what the centennial celebration was all about, the passing of the torch, if you will. And, we here at CEE will continue to look forward even as we honor the past.

Ali Haghani

During the recent centennial celebration, Ali Haghani, department chair, delivered the following speech, reflecting on CEE's past and what the future may hold. Here are some highlights:

Civil and environmental engineering is, and has always been a part of human existence. Early civilizations relied on the organizational design and construction capabilities of those with fundamental engineering skills to construct the buildings and water systems that enabled people to gather in large communities. These same individuals also built the fortifications

that protected these cities and villages and the roads that joined them together. No nation has succeeded over time without access to a robust infrastructure and the civil engineers that build the infrastructure.

By the early 1800s, civil engineering was identified as a separate discipline in order to separate it from military engineering and as the industrial revolution flourished, so did the efforts of civil engineers.

In the U.S., the first engineering school was established at West Point in 1802 and in 1835 Rensselaer Polytechnic Institute (RPI) granted the first degree in civil engineering.

As the nation grew in the 19th century, civil engineers led the expansion across the continent through construction of the highways, waterways and ports that made movement to the West a reality and international trade a significant component of the growing economy.

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Greetings to our readers. This is a special issue of our newsletter, full of stories and information about our recent 100th anniversary celebration. As such, I will keep my message to you brief so that you may enjoy reading all about our activities during the centennial.

What an amazing and fulfilling past few months it has been! Especially in April when we officially celebrated our centennial. As many of you know, we at CEE have spent the last year planning ways to commemorate such a milestone. All the hard work certainly paid off. It was a glorious affair, from the symposium on the

Below: Alumn Philip Cooper in conversation at the symposium



1908
CENTENNIAL
CELEBRATION
2008

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Cover photo: Charles Irish Sr. and A. James Clark speaking with students at the CEE Centennial Gala

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You are also invited to visit our web site at www.cee.umd.edu

Centennial Medal winners with the CEE Centennial Committee members

Top row (l-r): Gerald Galloway, Sangeeta Kaul, Richard McCuen, Ali Haghani, Gregory Baecher, and Doug Hansford

Bottom row (l-r): Richard Reed, Dan Garber, General Robert Van Antwerp, Mariko Wright, A. James Clark, C. Rebecca Chavarria, James Colville, Margaret Keimig, Dave Mongan, Neil Pedersen (SHA), Charles Irish Sr., Raymond Krizek and Robert Ragan



CEE chairman Ali Haghani with General Robert Van Antwerp at the Centennial Gala

The panel of speakers at the symposium

Alumni and benefactor A. James Clark at the Centennial Gala



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The University of Maryland's first civil engineer was awarded his degree in 1908. The same year a formal curriculum was adopted by the new department, requiring those in the program to be masters of both breadth and depth in the discipline. Harry Clifton Byrd, later to become president of the University of Maryland and have the football stadium named after him, was one of the first civil engineering graduates. In 1908, "Curly" Byrd was the star quarterback and captain of the Maryland Agricultural College football team, a starting pitcher on the baseball team and one of the top runners on the school's relay team.

In 1928, Evelyn B. Harrison became the first woman admitted to engineering. Her legacy lives on today in the many women now enrolled in civil engineering. Since those early days, the Department of Civil Engineering has produced thousands of engineers at both the graduate and undergraduate level and these individuals

have provided invaluable engineering services to the public both here in Maryland and around the nation.

As national interest focused on a broader approach to sustainability and environmental stewardship, the department was renamed the Department of Civil and Environmental Engineering in 1998 and expanded its offerings in these fields.

Today, with 26 tenured and tenure-track faculty members, 172 graduate students and 314 undergraduates, our department has become one of the most dynamic organizations on campus, and we are proud to celebrate our centennial. During these years, our alumni, faculty and staff have had many accomplishments and have made many outstanding contributions to the state of Maryland and the nation. The department has grown and matured in many respects over the years and has garnered national recognition in many areas of education and research. The breadth of our

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General Robert Van Antwerp jesting with a student at the Centennial Gala



CEE chairman Ali Haghani with alumnus A. James Clark



A 100 YEARS AND COUNTING...

CEE Celebrates Centennial with Commemorative Book, Symposium and Gala



The Department of Civil and Environmental Engineering (CEE) stands on a solid foundation of growth and achievement. And, this year, in April 2008, the department celebrated a significant milestone – its 100th anniversary. It was a long road of celebratory activities leading to the Centennial Gala which was shared by the department’s alumni, corporate partners, faculty, staff and students alike.

CEE was supported in this venture by its illustrious alumnus, A. James Clark, and by corporate partners such as Whiting-Turner, Clark Construction, Whitney, Bailey, Cox and Magnani, Forrester Construction, Greenhorne & O’Mara, Vika and Sigma Engineering. Distinguished alumni including Clark and Charles Irish Sr., Richard Reed and Dave Mongan attended the Centennial Gala. Preparations for this celebration began almost a year ago. “We recognized then that this event would be a time of celebration and remembrance for our faculty, staff, students and most importantly our alumni,” says Ali Haghani, department chair. As such CEE planned to honor this date in a variety of ways, which included the publication of a commemorative book, a symposium and Centennial Gala scheduled for April 5, 2008.

In honor of the anniversary, CEE published the commemorative book *Reflecting on Our Past*, which highlights the department’s first 100 years with photos and personal alumni anecdotes spanning the years. “It’s sort of our 100-year yearbook,” says long-time faculty member Richard McCuen, the book’s editor. “When you graduate you receive a yearbook. Well, this yearbook enables individuals to look over time to the period when they were at the university.”

And, there was much to be remembered and acknowledged. According to McCuen, CEE’s illustrious alumni include Harry Clifton “Curly” Byrd, former president of the university, and A. James Clark, for which the Clark School is named. There have been 131 faculty members and instructors teaching within the department over the last 100 years. “Three of them were deans,” says McCuen, “and two of them taught for 38 years.”

The picture-laden book also provides readers with a glimpse of the people and events that have made CEE’s 100 years so remarkable and memorable. It went on sale a few days before the Centennial Gala and has been well received by all who have sampled it. Everyone is encouraged to procure their copies by ordering through the CEE website, or by calling the CEE office (301 405 7768).

The centennial just wasn’t about looking back, however. CEE also hosted a symposium titled “The Future of Civil Engineering” on April 5, 2008. This was a day of discussion about the future of civil engineering education and professional practice.

Special guest speakers for the event included Donald Boesch, president of the University of Maryland Center for Environmental Studies, who spoke on “Building in the Future: Living with the Environment;” Richard Lawrie of Lawrie and Associates, who spoke on “21st Century Design Challenges;” Lewis Link, director of the Katrina Interagency Performance Evaluation Task Force and a CEE faculty member, who spoke on “Learning Lessons from Hurricane Katrina;” David Mongan, PE, CE ’72, president of ASCE, who spoke on “Civil Engineering 2025;” Priscilla Nelson, provost of the New Jersey Institute of Technology, who spoke on “Educating the Civil Engineer of the Future;” and John D. Porcari, secretary of the Maryland Department of Transportation, who spoke on “Maryland Transportation Challenges.”

The symposium’s Construction Panel included CEE faculty member Miroslaw Skibniewski as moderator; William Calhoun, executive vice president of Clark Construction; David Forrester, president and CEO of Forrester Construction; Robert L. Mitchell, chairman and CEO of Mitchell & Best Homebuilders; and Richard L. Vogel, senior vice president of Whiting-Turner Contracting Co.

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Above: CEE alum Harry Clifton “Curly” Byrd, who was later president of the University and had the football stadium named after him



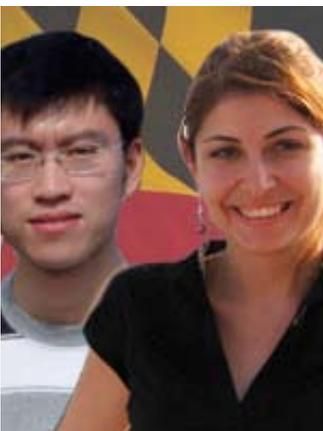
When **Elise Miller-Hooks**, a CEE faculty member, was approached by the German School (i.e. the Deutsch Schule) in Potomac, Md., for help with routing a heterogeneous fleet of nine school buses to serve students in grades pre-K through 13, she turned to her students for answers. Miller-Hooks put the challenge to 15 transportation graduate students who attended her class, ENCE 688T Transportation Network Algorithms and Implementations, this past spring semester.

“The German School had been struggling with developing routes for their buses and often wondered if and how they could come up with closer to optimal routes,” say Miller-Hooks. “This problem can be modeled as a vehicle routing problem, a difficult mathematical problem that is well-known to be mathematically intractable.”

With techniques studied in Miller-Hooks’ class and expertise gained through other courses taken during their studies, the students were ready to meet the challenge of developing tours that would out-perform the current tours used by the school. “When the students presented their findings, the school was surprised and excited to see how much improvement was possible,” says Miller-Hooks, adding that “the school is now planning to change the bus routes this next academic year to incorporate the best results obtained by class members.”



CEE student and university baseball team member **Kevin Biringer** was one of eight graduating players honored in a special ceremony led by head coach Terry Rupp. Biringer, a civil engineering major, is a pitcher for the university’s baseball team. Biringer, who is originally from Albuquerque, New Mexico, transferred from Bradley University to the university in part because of the engineering program here.



Graduate students **Gulsah Akar** and **Yue Liu** were chosen for the 2008-09 Ann G. Wylie Dissertation Fellowship. The Fellowship program is an initiative of the University of Maryland Graduate School intended to help outstanding graduate students in the final semester of writing their dissertation. The Ann G. Wylie Dissertation Fellowship is a university-wide competitive program and is based on the quality of the student’s work, as well as the potential contribution of their dissertation to the student’s field of research.

Graduate student **Natasha Andrade** received the best poster presentation award at the Society of Environmental Toxicology and Chemistry regional meeting for her work on “Fate of PBDEs in Biosolids and Soil from Commercial Farms that Receive Biosolids Application.” She has been invited to prepare a paper for the national meeting.

In West Africa, women in villages around the town of Dissin in Burkina Faso draw their water from wells with hand pumps. In the dry season, crops can be grown only with irrigation, but hand pumping is impractical to maintain even subsistence gardens. This leaves the food situation bleak during those months. A solar energy retrofit to that pump, however, could change the picture radically, and that is the goal of the next University of Maryland Engineers Without Borders (EWB) project.

The **Scholl Family Foundation** has stepped forward with a \$25,000 gift to the EWB chapter to support the solar-powered pump project. Their gift, made jointly by parents, Tom and Susan Scholl, and sons, William and Tommy, will buy materials essential to the project, and send nine EWB students, one supervising faculty member and one practicing engineer to Dissin to build the project they designed at the Clark School.

U.S. News & World Report ranked the Clark School 17th in the nation and 11th among public universities in its listing of top graduate engineering schools in the U.S. for 2009. CEE was 21st in the nation and 14th among public schools. The Clark School also maintained its place as 13th among engineering schools worldwide according to the Institute of Higher Education at Shanghai Jiao Tong University in China.

EWB members will work with the villagers to construct the system, adapting it to their needs and to the practical constraints of a harsh environment. The team, drawn from four engineering majors (mechanical, civil, bioengineering, and electrical and computer), and one student from math and economics, is grappling with design issues that must balance effectiveness with appropriate sustainable technology.

“It is a case of engineering used to address the most basic needs of the poor, of Clark School students understanding their capacity and responsibility to be world citizens, and of a gift that provides the means to accomplish it,” said EWB faculty advisor **Deborah Goodings**, a professor of civil and environmental engineering.

The **Center for Advanced Transportation Technology** lab’s graduate research assistants Michael VanDaniker and Darya Filippova, were among the 2008 Graduate Research Interaction Day award winners. Michael VanDaniker’s research came in first place and Darya Filippova’s research came in third place in the smart computers category. Both were presented with a cash award.

Maryland-based engineering consulting firm **Greenhorne & O’Mara (G&O)** has established a new internship/scholarship program in conjunction with the university to benefit civil engineering students in CEE. The internship/scholarship program has been established in honor of the co-founder of G&O, A. James O’Mara, P.E., who passed away in November 2007.

Civil engineering students at the university are invited to compete for four summer internship positions at G&O’s Maryland offices. The A. James O’Mara scholarship interns who successfully complete the three-month paid internship program will each be eligible for \$3,000 in tuition assistance in their civil engineering program in the following academic year.

An Alumni Recalls...



Glenn Moglen
alum and now faculty member
and researcher with CEE

"Professor Richard McCuen was so instrumental in encouraging me to expand my career vision and go to grad school. When I returned as a faculty member, though, I had to get used to calling him Rick and not Dr. McCuen."



Swapna Sharma
recent graduate and new alum

"As I enter my final year here, I can say with certainty that my experience will be truly unforgettable. When I first began, I had set my sights on designing tall structures and endless bridges. With the help of my coursework in the past years - along with excellent internship experiences - that goal no longer seems so implausible or far-fetched. I believe that the experience and support I have received will guide me well toward my goal of becoming a structural engineer."

The internship/scholarship program is designed to provide the students with meaningful, "real-world" work experiences with one of the region's largest national engineering consulting firms, which could lead to enhanced full-time offers of employment upon graduation from college. Participants in this program may be awarded as much as \$9,000 in scholarship money if they begin the internship after their freshman year and return to G&O in subsequent summers until graduation.

"This new internship/scholarship program will provide priceless professional experience to engineering students, as well as assist them with tuition expenses," says **Tom Chicca**, G&O's senior vice president of general civil services. "They will work with some of the industry's best civil, transportation, water and environmental engineers, as well as planners, landscape architects, and surveyors — and be introduced to hands-on, real-world projects. This invaluable experience breathes life and comprehension into what they have learned in the classroom."

Greenhorne and O'Mara (G&O) is a full-service engineering consulting firm that provides solutions in the areas of general civil, transportation, environmental, water resources, and hazard mitigation and security services to clients in the public and private sectors. G&O's 17 offices support projects located throughout the United States and overseas.

The **A. James Clark School of Engineering Leadership Award** was presented to Jazalyn Dukes, a civil and environmental engineering senior, in recognition of outstanding leadership. Dukes maintained a 3.97 grade point average and appeared for seven semesters on the dean's list. She previously received the Berman and Kirwan Awards. Dukes is president of the Engineering Student Council, officer of the American Society of Civil Engineers, member of the Omicron Delta Kappa National Leadership Honor Society and Inventis:Academy of Engineering Leadership, a Clark School Ambassador and banquet chair for the Black Engineers Society.

Other recent student award recipients include:

- CEE's *Outstanding Senior Award* – David Miller
- Woodward-Clyde Consultants Award* – Michael Mercado
- Chi Epsilon Outstanding Senior Award* – Justin Melamud and John Clayton
- Bechtel Award* – Swapna Sharma
- Robert L. Morris Award for Environmental Leadership* – Sarah Ness
- CEE Chair's Award* – Alan Coleman
- ASCE Outstanding Senior Award* – Peter LaRue

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CHAIRMAN'S MESSAGE

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education programs, our research, our outreach programs and our services to community is simply outstanding.



Our faculty and students are at the cutting edge of transportation engineering, water resources management, environmental sustainability, geotechnical analysis, structural engineering innovation and engineering project management.

Our faculty members are continuously called upon to share their expertise with the media, elected officials and federal, state and local governments. Most notable has been the leadership of the department in the conduct of the forensic examination of the causes of levee failures in New Orleans and our recent designation as one of the federally-funded Tier I University Transportation Centers. In the most recent ranking of U.S. News and World Report, the department was ranked 21st in the nation.

Civil engineering has been and will continue to be a critical element of our nation's economy and a steward of our built environment. As the ASCE president, Mr. David Mongan, explained to symposium attendees, the civil engineers of 2025 will serve as master builders, environmental stewards, innovators and integrators, managers of risk and uncertainty and leaders in shaping public policy. Maryland civil engineers will be there.

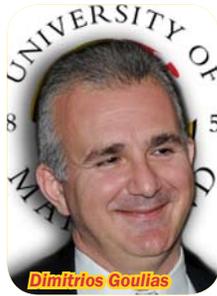
Gerald Galloway, research professor, Glenn L. Martin Institute Professor of Engineering and affiliate faculty member of the Engineering and Public Policy Program, has won the 2008 American Association of Engineering Societies (AAES) Norm Augustine Award. Galloway was recognized for his continuous work on promoting national policy on floodplain and wetland management. The AAES Norm Augustine Award is presented to engineers who demonstrate the capacity for communicating the excitement and wonder of engineering.

Galloway has also been invited to the United Nations World Water Assessment Programme (WWAP) to serve as the co-chair (with the Minister of Water for Nepal) for the WWAP Expert Group on Policy Relevance. The expert group will assist WWAP in overseeing the preparation of the third edition of the United Nations World Water Development Report (WWDR). The Expert Group on Policy Relevance is being formed to help WWAP to ensure that the WWDR3 and its associated processes achieve a quality of 'practical relevance' for its users and target audience. Prior to the UN meeting Galloway will attend a meeting in Italy with the WWDR writers and the co-chairs of other expert groups to discuss the status of the report and the results of their on-line consultations.

Finally, Galloway was recently interviewed by The New York Times for an article about levees along the storm-rampaged Mississippi, and he discussed in some detail his observations on the status of the levees. He was also recently featured on NPR talking about the recent flood in the Midwest.

Richard McCuen, professor of civil and environmental engineering, is this year's recipient of the Clark School Faculty Service Award. McCuen has contributed to the university, Clark School and his department in several ways. He is director of the Clark School Honors Program, with which he has been involved since the 1980s, and teaches four Honors seminar sections each year. He teaches the introductory course for the Future Faculty program, which prepares students for academic careers. He is a former associate dean for undergraduate studies and has served on his department's Committee on Undergraduate Education and was actively involved with CEE's recent 100th celebration. He has also been involved in high school outreach activities; in Chi Epsilon, the national honor society for civil engineering students; and in the mentoring of colleagues and students for many years. One colleague notes, "Rick's name is synonymous with service to the department, the school and the community at large."

Professor **Gregory Baecher** appeared on the nationally syndicated Kojo Nnamdi Show on local Washington, D.C., station WAMU on May 21, 2008, discussing the widespread occurrence of geological sink holes in the Washington area over the past few weeks and the impact on residential and transportation infrastructure. In the week leading up to May 21, a major sinkhole in limestone formations near Frederick, Md., closed I-70 for many



hours; and a sinkhole in gravelly and sandy upland shore deposits near Andrews Air Force Base destroyed four houses. These phenomena are due to a combination of geological conditions and groundwater flows.

Elise Miller-Hooks, associate professor, is chair-elect of the University Senate, effective May 8. The chair-elect is an ex-officio member of the Senate Executive Committee, which sets the agenda for the senate. The chair-elect also meets regularly with the provost's Academic Planning Advisory Committee, the Facilities Council and the University Library Council, reporting back to the Senate Executive Committee. Miller-Hooks will become chair of the senate during the 2009-2010 term, presiding over the Senate Executive Committee and the senate as a whole. The chair also represents the university faculty at meetings with legislators in Annapolis. The University Senate gives faculty, staff, students and administrators the opportunity to advise the university president on matters concerning education, budget, personnel, campus community, long-range plans, facilities and faculty, staff and student affairs.

Dimitrios Goulias, associate professor, was recently appointed to the editorial board of two international journals, the International Journal of Pavements and the prestigious ICE Journal of Construction Materials of the Institute of Civil Engineers in the U.K.

The Resources For the Future (RFF) website has published **Steven Gabriel's** commentary on the international natural gas markets. Gabriel was awarded the Gilbert F. White Fellowship by RFF to analyze supply security in natural gas markets in the U.S., E.U. and worldwide. Also, Gabriel and Shapour Azarm of the Department of Mechanical Engineering recently won a three-year grant with the Office of Naval Research for \$362,425. The focus of the work is to develop robust optimization methods to solve multi-objective problems in engineering design that contain a mixture of continuous and discrete variables. And finally, Gabriel recently gave two talks at the University of Málaga, Spain, on "A Global Natural Gas Market Equilibrium Model" and "Stochastic Market Equilibrium Models Using Complementarity Theory."

The **Maryland Transportation Technology Transfer (MD T²) Center**, part of CEE, has launched a new website and reports 2007 as its best year ever in terms of quantity and quality of training courses delivered. The MD T² Center as part of the Federal Highway Administration's (FHWA) Local Technical Assistance Program (LTAP) has seen exponential growth in course offerings since 2003 when it offered 21 courses. In 2005, 49 courses were offered and last year it topped the charts with a total of 78 courses offered. In an effort to further MD T²'s focus on delivering training to its customers, a new MD T² website has been developed that introduces a sleeker design and more user-friendly pages. Class registration and training requests can be completed from the new site. To see the MD T² Center's new look, please visit: www.mdt2center.umd.edu

The **Center for Advanced Transportation Technology Laboratory (CATT Lab)** was highlighted in a recent episode of Modern Marvels which aired on the History Channel. The episode entitled "Superhighways" examined the CATT Lab's three-dimensional, multi-player computer gaming simulation

technology that allows hundreds of remote participants to interact with one another online in various virtual disasters and accident scenarios. For the taping of the “Superhighways” episode, a Modern Marvels crew visited the CATT Lab and witnessed nearly 50 first-responders from across the country participating in a mock scenario involving a four-vehicle tractor trailer incident with multiple, serious injuries.

Jacques S. Gansler, an affiliate professor with CEE, was honored recently with the Secretary of Army Public Service Award. Gansler is the Roger C. Lipitz Chair in Public Policy and Private Enterprise and director at the Center for Public Policy and Private Enterprise.

Visiting Research Scholars with CEE’s Project Management Program include:

In-Joon Kang from Pusan National University. Past president of Korea GIS Society. Research specialization: GIS technology application in construction project planning and management. Funded by the Korean government.

Lei Zheng, associate professor from Southeast University, Nanjin, China. Research specialization: construction project contractor evaluation decision support systems. Funded by the Chinese government.

Jingfeng Yuan, doctoral candidate from Southeast University, Nanjin, China. Research specialization: innovative methods for project performance evaluation of public-private partnerships in infrastructure construction. Funded by the Chinese government.

Kamolwan (Molly) Lueprasert, associate professor from King Mongkut Institute of Technology, Bangkok, Thailand. Research specialization: IT-based alternative dispute resolution procedures and techniques for construction projects. Funded as a Fulbright Foundation Scholar.

Kangsuk Suh, professor, past senior vice president and past acting president of Honam University, Korea. Research interests: innovative planning and scheduling methods for construction projects. Funded by Seong-In Foundation Senior Research Fellowship of Korea.

All the Visiting Research Scholars are being sponsored by Professor Miroslaw J. Skibniewski.

Engineers, including **Stanley Young**, a researcher with CATT, are investigating the potential use of an Automated Small Vehicle Transport (ASVT) system in Wyandotte County, Kansas. The system comprises a fleet of fully automated vehicles – each with a capacity to transport between two and 12 people. Unlike conventional transit that runs on a schedule, stops every mile or so and groups people together in masses, the proposed system operates more like automobiles. These vehicles are available on demand and transport people directly to their destination without stopping for additional riders. Such a system is scheduled to open at England’s Heathrow International Airport in 2009.

The team of researchers will consider how an ASVT system could enhance mobility and relieve parking and vehicle congestion in the commercial development area near the Kansas Speedway, the Legends at Village West, the Woodlands Race Track and the Providence Medical Center.

“Despite the number of attractions, the dominant use of developed land is parking lots and roads to serve these attractions,” says Young, the lead researcher in the Kansas Department of Transportation and Kansas University study. “The principal complaint of patrons is movement in and about the attractions in the area.”

The research project will focus on accessibility improvements to the existing and planned facilities, possible links to any existing and planned transit systems and reduction in land area dedicated to parking.

An Alumni Recalls...



Philip C. “Pete” Cooper
(CE Class of 1931)

Philip Cooper arrived on campus in 1927 from Salisbury, Md. He enrolled in the CE program with a high school chum, Francis “Frank” Holloway. Pete entered the program with much the same apprehensions as freshman do today:

“I guess it could properly be said that I was the typical country boy, going away from home, on my own for the first time, filled with enthusiasm and anticipation, yet just a little fearful.” In taking on a rigorous civil engineering curriculum, Cooper describes the task:

“The first two years academically was a period of catch-up for me, as there were many talented students who had previously attended more technically advanced high schools.”

But the academic struggles of catching up led to the dean’s list by his junior year. He also had some catching up to do on the social scene of College Park:

“The first order of business was to learn to dance. Fortunately, my three roommates had the same problem, so together we sought out a dancing class, held in the home of Miss Esme Rita (a retired Broadway dancer) in nearby Hyattsville. One night each week, Esme provided instruction and girls, and we did the rest. Gradually we achieved a plateau of ballroom skills and behavior that permitted us to participate more fully in the social life of the university.”

Cooper has not forgotten the instructors “who in varying degrees helped shape our academic and professional careers.” Even in the 1920’s, communication was an important part of the curriculum:

“The College of Engineering at Maryland...it was headed by Dean A.N. Johnson, a quiet-spoken but highly regarded scholar, who insisted that all his engineering students take at least one semester of public speaking to help ease the stage fright that had been a problem with him all his professional life and might, if not properly dealt with, someday prevent us from reaching our full potential.”

Upon graduation, Cooper and his fellow civil engineering classmates were graduating into an economy deep into the Great Depression. Fortunately, he was able to get a job with the Maryland State Roads Commission. Then he spent three years in the Pacific Theater of War during World War II providing engineering and construction support.

Quotations in this vignette were taken from Cooper’s book, *The Engineer in War and Peace: from Guadalcanal to Main Street*, which was published by Gateway Press, Inc., in 1996.

David E. Scott, B.S. '85, CEE, and M.Eng. '00, has been named director of public works for the city of Baltimore. Baltimore Mayor Sheila Dixon made the appointment pending a vote by the Baltimore City Council. Scott will leave his job as commissioner for public works for Atlanta, Ga., where he managed more than 900 employees, according to the [Baltimore Sun](#). He is a native of Baltimore County. As Baltimore's public works director, Scott will oversee public waste disposal, transportation and fleet services, the [Sun](#) reported.



David Scott

CEE alum, **Thomas W. Jones**, recently left his position as command of the U.S. Coast Guard Research and Development Center to become the chief of office of budget and programs at the Coast Guard headquarters in Washington, D.C.



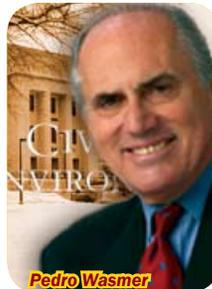
Thomas W. Jones

Amy Childress has been appointed as the new chair of the Department of Civil and Environmental Engineering at the University of Nevada, Reno (UNR). Childress, who joined UNR in 1997, graduated with a bachelor's degree from CEE in 1992.



Amy Childress

The American Iron and Steel Institute Steel Bridge Task Force and the American Association of State Highway and Transportation Officials (AASHTO) Technical Committee for Structural Steel Design have named **William J. Wright** as the recipient of the 2008 Richard S. Fountain Award. The award is presented annually to recognize leadership in steel bridge research and outstanding efforts to advance AASHTO specifications. Wright, who received a bachelor's degree and master's degree in structural engineering from the university's CEE program, is team leader for bridge design and construction research at the Turner-Fairbank Highway Research Center in McLean, Va.



Pedro Wasmer

Carolyn Merry, a professor and chair of the Department of Civil and Environmental Engineering and Geodetic Science at Ohio State University, has won the election to become the 2008 vice president for the American Society for Photogrammetry and Remote Sensing. Merry earned her doctoral degree from CEE. Before joining Ohio State, she worked for 15 years at the U.S. Army Cold Regions Research and Engineering Laboratory in New Hampshire as a research physical scientist and geologist.



Archana Kohli

Pedro E. Wasmer, B.S. '62, civil engineering, will receive the Tyser Gottwals Award for his service to the university. Wasmer, who retired last year as CEO of Somerset Capital Group Ltd., is a member of the Clark School Board of Visitors and a trustee of both the University of Maryland College Park Foundation and the University System of Maryland Foundation.



Carolyn Merry

Joel S. Keels, who received his master's degree in construction management from CEE in 2005, has been promoted to vice president with KCI Technologies Inc., a Maryland-based consulting engineering firm with offices in the Northeast, Southeast and Mid-Atlantic. Since joining KCI as a construction manager in 1999, Keels has worked on many of the firm's projects, including the historic St.

Mary's County courthouse, the Lexington Park Library and the Delaware Recycling Center, all three of which won project excellence awards from the Construction Management Association of America. KCI promoted Keels to operations manager in 2004 and division chief in 2006. Keels received his bachelor's degree in general engineering from the U.S. Naval Academy in 1986. He is a certified construction manager and a member of the Construction Management Association of America.

Greg Rose, who received his bachelor's degree from CEE in 1993, is the co-host of the popular "Golf Fitness Academy" series on the Golf Channel and has worked with the top players in the world, including Masters defending champion Zach Johnson. Rose is also co-founder of the California-based Titleist Performance Institute, one of golf's premier swing, conditioning and custom club-fitting facilities.

Abdo E. Kardous, who received his bachelor's degree with honors from CEE, is senior vice president and managing director of Middle East operations with Hill International and is responsible for managing some of Hill's premier projects. Kardous is a member of both the American Society of Civil Engineers and the Institute of Transportation Engineers. Kardous was awarded Hill International's Project Manager of the Year award in 2001.

Archana Kohli (Puri), who graduated in 1990, is currently a civil engineer with the Office of Surface Mining at the Department of the Interior. In December 2007 Kohli attended an international conference in India and won a trophy for her presentation on her paper, "Social and Environmental Consequences of Coal Mining in India." "It was also a great opportunity to meet one of the scientists who recently won the Nobel Prize with Al Gore on global warming," writes Kohli. Kohli has published two books, "A Private View" and "At Peace or in Pieces?" under the name of Ruchi Kohli. All the money generated from the sales of the books goes to charities that promote peace and compassion.

Paul Burkart received his B.S. in civil engineering from the University of Maryland in 1985 and his M.S. in geotechnical engineering from the University of Maryland in 1992. In 1999, Burkart and three others formed their own geotechnical engineering consulting firm. The company, GeoConcepts Engineering, Inc., is a woman/minority owned business that provides professional geotechnical engineering, hydrogeologic and environmental consulting services to private and public sector clients. The company has grown from the four founding members to over 50 employees with 11,000 square feet of office and laboratory space in Ashburn, Va., and serves clients in Maryland, Virginia, Washington, D.C., West Virginia and Pennsylvania. In 2001, GeoConcepts earned the New Business of the Year Award from the town of Leesburg, Va., and was a finalist for Entrepreneur of the Year in Loudoun County, Va.

Won-Suk Jang, a December 2007 Ph.D. graduate, is now serving as a post-doctoral research associate with Professor Miroslaw J. Skibniewski, and will be working for up to four years with full financial support at NIST on the continuation of his research on advanced wireless sensor network technologies for asset tracking on project sites.

A 100 YEARS AND COUNTING...

CEE Celebrates Centennial with Commemorative Book, Symposium and Gala

continued from page 5

IN ACKNOWLEDGMENT OF OUR CENTENNIAL PARTNERS

We would like to acknowledge the following friends of the Civil and Environmental Engineering Department for their generous support of our CENTENNIAL CELEBRATION. We deeply appreciate their partnership in commemorating this historical milestone.

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The Centennial Gala was held at the UMUC Marriott Inn & Conference Center. Strains of classical music played by a quartet welcomed the 200-plus group of invitees that included CEE alumni, students, faculty, staff and corporate friends. The welcome remarks by Ali Haghani, department chair, began an enjoyable evening. Gregory Baecher, member of the centennial committee and CEE faculty member, introduced the distinguished guests and alumni attending the event.

After dinner commenced, Centennial Committee member Gerald Galloway introduced the guest speaker, General Robert Van Antwerp, commander of the U.S. Army Corps of Engineers. He spoke on "Maintaining America's Infrastructure."

The department honored 14 members of the CEE family with the specially designed and commemorative Centennial Medal. Those receiving the medal were C. Rebecca Chavarria, A. James Clark,

James Colville, Ben Dyer (posthumously), Daniel Garber, Charles Irish Sr., Margaret Keimig, Raymond J. Krizek, David Mongan, Robert Ragan, Richard Reed, Pedro Wasmer and Mariko Wright. The Centennial Medal was also awarded to the State Highway Administration, represented by Neil Pederson.

The Centennial Gala was honored by the presence of two of CEE's oldest graduates, Stan Lore (Class of 1934) and Phillip Cooper (Class of 1931). Lore drove all the way from Pennsylvania to attend the symposium and the Centennial Gala. "We were very honored by their presence," says Haghani.

The Department of Civil and Environmental Engineering extends its heartiest thanks to all those who made this celebration a monumental success. Here's to the next 100 years!

An Alumni Recalls...



Paul Burkart,
B.S. '85, M.S.
(geotechnical engineering) '92

"I have many fond memories of my professors at the university of Maryland. When I received my B.S. degree, my concentration was in the water resources department.

I remember the first class I had with Dr. Sternberg, it was ground water hydrology. The score of my first exam was like 28 out of 100, and the average was like 40 out of 100. I, and the majority of the class, were stunned. In hindsight, the exam wasn't that difficult. Dr. Sternberg was just giving us real-life problems that required us to know the theory, and if we didn't know it, there was no way to come up with the right answer. I have to come to appreciate his approach to teaching, and yes I made it through the class.

Dr. McCuen was also tough in a different way, he expected us to get to class on time, be prepared and act professionally. It was an eye-opener for me, and in hindsight I really appreciate his preparing us for the real world. I wonder if he has gotten any better at tennis, and if he still recites TR-20 and TR-55 in his sleep.

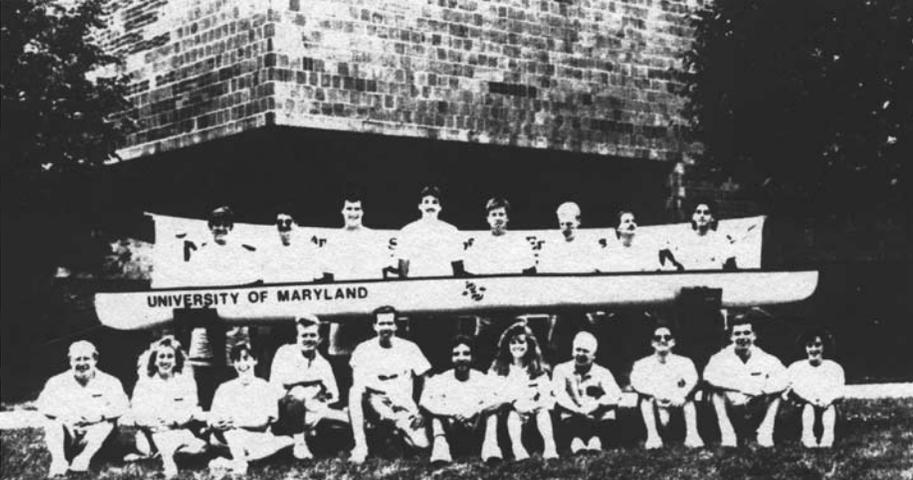
I took a job in the geotechnical field and then came back to Maryland and got exposed to Dr. Aggour, Dr. Goodings, Dr. Schwartz, etc. They fine-tuned my education for the geotechnical field I am currently practicing."



Saul Seltzer, P.E., FNSPE
Class of 1952

"One of my best memories of my time when I was student was when moving into the newly built Glenn L. Martin Engineering Building and having classes in the new structure. I remember Professor Russ Allen because of his concern about being a credit to the engineering profession. His strong feeling on taking the

E.I.T. exam and eventually becoming a registered professional engineer. My most memorable course at Maryland was Surveying because it enabled the class to get around the entire campus, see the buildings survey the adjacent areas. I remember the time when a group of civil engineering students were called before Dean S. Steinberg to discuss our grades and being told that we can do better. If not improved consider another major such as Arts and Science. While I was a student in civil engineering, the most important lesson I learned about life was: Information and problem solving can be found in many books and manuals and it is vital to know the sources."



CENTENNIAL TRIVIA

TRY AND ANSWER THESE..

1908
CENTENNIAL
CELEBRATION
2008



Q1: Which of the following events happened in 1908?

- (a) The College Park Airport was established
- (b) The first model T Ford was assembled
- (c) The UM Civil Engineering Department was created
- (d) The Indianapolis Motor Speedway was built

If you guessed (b) or (c), score 1 point. Responses (a) and (d) date to 1909, the year after our program was formed.

Q2: Which of the following famous Americans were born the same year as the CEE department was born?

- (a) Lyndon Johnson
- (b) John Wayne
- (c) Thurgood Marshall
- (d) Barbara Stanwyck

While Johnson and Marshall share our birth year, John Wayne and Barbara Stanwyck were born one year before in 1907. Other people of note born in 1908 include Ian Fleming of James Bond fame, Percy Faith, Bette Davis and Lawrence Welk.

Q3: Who was one of our first CEE graduates?

- (a) Curly Byrd (recall Byrd Stadium)
- (b) Thomas Taliaferro
- (c) Richard H. McCuen

Actually, you score a point only if you answered Curly Byrd – not either of the other old timers! Curly Byrd was a student-athlete, having been a star football player as well as a member of UM baseball team.

*A*s we celebrate our 100th birthday, perhaps it is time that you gave thought to our history. It actually is more interesting than might be imagined. What was happening in the same year that our department was launched, 1908? Who were some of our early leaders? Where were we housed? After taking the test below, we will tell you how you can learn more about civil engineering at the University of Maryland. Let's see how many of the following questions you can get correct!

Graduation in four years! This is very likely now, but for most of our history, the credit hour requirement served as a road block to that goal.

Q4: Over the first 100 years, what is the largest number of credit hours required to graduate with a B.S.C.E. degree?

- (a) 138
- (b) 143
- (c) 148
- (d) 153

Students who currently graduate after taking 122 credit hours would likely be aghast if they had to complete 153 credit hours, which was required of CE students in the early years.

Q5: Who was our first faculty member?

- (a) Thomas Taliaferro
- (b) S.S. Steinberg
- (c) H.J. Patterson
- (d) Ali Haghani

Taliaferro started teaching in our department in 1908 and served on the faculty for 13 years. For part of his tenure he served as dean of engineering.

Q6: Which of our other faculty became dean of engineering?

- (a) Fred Mavis
- (b) S.S. Sternberg
- (c) Curly Byrd
- (d) Jim Colville

This was a tough one, so if you selected (a) or (b) you score a point, as both served as Dean. Curly Byrd served as president of the University of Maryland and Jim Colville served as associate dean of engineering.

Q7: Which department admitted the first woman into a UM engineering program?

- (a) Mechanical Engineering
- (b) Electrical Engineering
- (c) Civil Engineering
- (d) Computer Engineering

Yes, our department was first. In 1928, Evelyn Harrison was admitted, and she graduated with a B.S.C.E. in 1932.

For a change of pace, this next query is a true or false question, but guessing is not allowed:

Q8: In the early years of our program, students were required to be employed in a civil engineering job during every summer in order to graduate?

True False

This is actually true. Graduation could be denied if the student did not have sufficient practical experience. It is doubtful that such a requirement would be allowed in this day and age, but the authority of the program was different four and five score years ago. Just think of the travel conditions in the early 20th century. This made travel from campus to the job more challenging.

The curriculum has changed significantly over the decades. Surveying was a central part during our early years but the credit hours devoted to courses in surveying gradually declined over time.

Q9: Which one of the following courses was not a requirement in the early years?

- (a) Military instruction
- (b) Religion
- (c) English rhetoric
- (d) A language

In some years, the program required more than 150 credit hours to graduate, with some semesters requiring 20 credit hours. Of the above courses, only (b) was not a requirement, but neither was history or literature required.

One final question about our history:

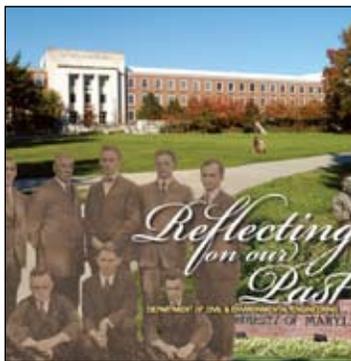
Q10: What place finish in the National Concrete Canoe Races was the highest achieved by students of our department?

- (a) First
- (b) Second
- (c) Third
- (d) Never finished in the top 3

In two years, we received second place finishes in the national competitions.

So, how well did you do on this test? We bet it was tougher than the structures test that you took as a civil engineering student. Do these facts about the faculty, students and accomplishments of our department over the first 100 years interest you? Then you may want to submit your order for Reflecting on Our Past, which is the name of our glossy picture book that discusses all of the above topics, and many more. Changes to the curriculum over the 100 years are detailed, and page after page of photographs will help you reflect on your years as a student in our department.

To order, please visit our centennial website at <http://www.civil.umd.edu/centennial/> or mail in your order form (included in this issue) with the payment. The price (\$35) of the 155-page book includes shipping within the United States.



“REFLECTING ON OUR PAST”

CENTENNIAL BOOK ORDER FORM

Please print this order form, fill it out, and fax it to:

Attn: Nikki Morris

Phone: 301.405.6261

Fax: 301.405.2585

Price (includes shipping) is **\$35.00/book**

You are also welcome to personally pick up your book from the CEE office.

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We’d Love To Hear From You!

We want to know where life has taken you since you left the University of Maryland. Please complete the form below, including any additional comments. You are welcome to send us an update on your personal stationary, or via email.

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DEGREE(S) GRADUATION YEAR(S)

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For further information, please visit us at <http://www.cee.umd.edu/>



THE FUTURE LOOKS BACK

STUDENTS TAKE PART IN CEE CENTENNIAL CELEBRATION

The 100th anniversary of CEE was a time of celebration for faculty and alumni, but students within the department also participated in observing this important milestone. Several of those students recently reflected on the celebration and what it means to be a CEE student at this particular time.

“The CEE Centennial celebration was a great experience. Myself and several other students attended the event in eager anticipation, for we knew we would be seeing some important faces in the world of civil engineering. Of personal interest to myself, as student president of ASCE in the Clark School, was the attendance of David Mongan, the current president of ASCE National.

It was very engaging to see pictures of the founding members of the department in 1908. It is amazing how far the department has come, even by the standards of today. I benefitted greatly from the experience and considered it a privilege to be able to attend. Besides, I don’t think I’ll be around for the next one.”

– *Jared McGrath, undergraduate student*

“I wanted to attend the Centennial Gala because I thought it was great that the department had reached such a milestone while I was still a student, and it was a great opportunity to take part and learn about the history of the department. It was great seeing the professors dressed up and enjoying themselves at the Centennial Gala. Students don’t often get to see their teachers interacting that way with colleagues and students. It was also great to see all the alumni there and people who had gone on to achieve great things as a result of their education from the department. I was really lucky to have been there during that time. I’m really proud of my department for reaching such a milestone.”

– *Jazalyn Dukes, undergraduate student*

“I attended the Centennial Gala and overall I was very pleased with the whole event. It was well organized and elegant. There was a very nice ceremony with a delicious dinner. I enjoyed being able to talk to my sponsors (several companies paid for select students to go to the Centennial Gala), learning about their work in the professional industry and connecting over stories of life at Maryland. I was very grateful of them to sponsor me, and I think all the students who went were glad to be apart of such an event.

“I was really lucky to have been there during that time. I’m really proud of my department for reaching such a milestone.”

[*Jazalyn Dukes*]

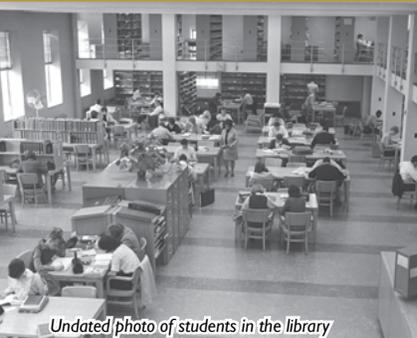
For me, it is exciting to be apart of this historic milestone because I got to learn about the past of CEE, the progress that has been made, and where the future lies for the department. Getting a chance to talk to professors and faculty in a more casual setting was very nice. Having been a part of CEE for three years now, I look forward to completing my last undergraduate year and seeing what other knowledge and experiences I will gain. Seeing the department so committed to change and evolution as the field of engineering continually changes, I am happy to see private companies, CEE benefactors, faculty and students all meeting together to celebrate achievements and look toward future accomplishments.”

– *Jason Becker, undergraduate student*

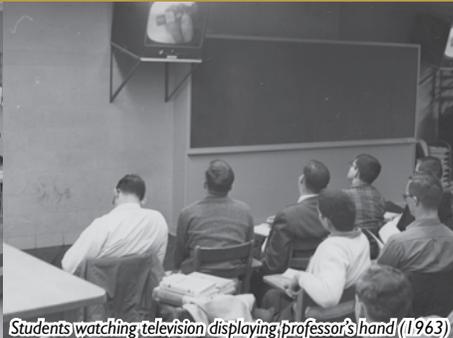


100
 THE DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING'S
 CENTENNIAL CELEBRATION

Biennial gathering of Chi Epsilon in 2001



Undated photo of students in the library



Students watching television displaying professor's hand (1963)



UMI Solar Decathlon Team, 2nd place winners of the 2007 Solar Decathlon



Class of 1979 reunites in December 2007



Engineers Without Borders students



Solar Decathlon students in 2005



CEE celebrates Maryland Day



Louning students (1947)



Engineering students testing design in 1959

THE WAY WE WERE...From "Reflecting on Our Past"

CIVIL REMARKS



ASCE (1986)



Concrete Canoe (1995)



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