CIVIL REMARKS

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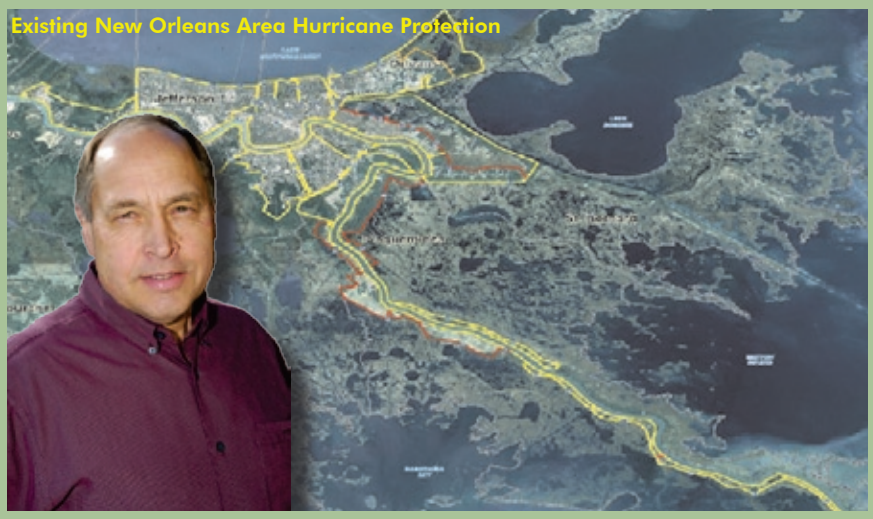
CIVIL AND ENVIRONMENTAL ENGINEERING

Senior Research Engineer Ed Link Selected to Lead Hurricane Katrina Task Force



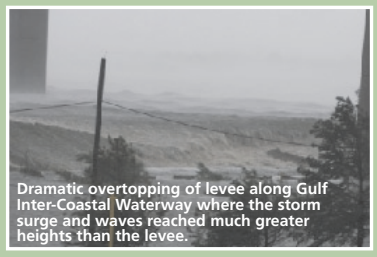
LEWIS E. (ED) LINK

Lewis E. (Ed) Link, a senior research engineer with the University of Maryland's Department of Civil and Environmental Engineering, has been selected to lead the Hurricane Katrina Interagency Performance Evaluation Task Force (IPET). IPET was established in October by the Chief of Engineers. The goal of the task force is to learn what happened with regard to flood protection and damage reduction capability in New Orleans during Hurricane Katrina and to apply those lessons in the reconstitution of the hurricane protection system, preventing similar destruction in the future.

"It's so important that we really understand what happened," says Link, who is also a senior fellow with the university's business school and has spent over three decades working with the Corps of Engineers, most recently as director of research and development and chief scientific advisor. "We need to take the lessons we learn and apply them. We can't afford not to."

According to Link, the task force is comprised of over 150 experts from government, industry and academia, working together to accomplish a "comprehensive analysis before the next hurricane season."

FAILURE OF LEVEES DUE TO DRAMATIC OVERTOPPING AND EROSION



Dramatic overtopping of levee along Gulf Inter-Coastal Waterway where the storm surge and waves reached much greater heights than the levee.

Failure of floodwall and scour from overtopping in Plaquemines Parish.

Map of St. Bernard's Parish showing damaged sections in red. Approximately 41 miles of a total of 268 miles of exposed levees and floodwalls in the region received severe damage.

CONTINUED ON PAGE 4

DR. BAECHER ELECTED TO THE NATIONAL ACADEMY OF ENGINEERING (NAE)

Faculty member Gregory Baecher has been elected as a member of the National Academy of Engineering (NAE). Baecher was elected for the development, explication and implementation of probabilistic- and reliability-based approaches to geotechnical and water-resources engineering. Election to the NAE is among the highest professional distinctions accorded to an engineer.

Baecher, who received his master's degree and Ph.D. in civil engineering from MIT, came to the Clark School in 1995. Since then, he has not only been a professor, but has served as a past chair of the department. Prior to joining the university, Baecher served as a captain with the Army Corps of Engineers; a professor with MIT's Department of Civil Engineering; and president and CEO of ConSolve Incorporated in Massachusetts.

His current projects include an engineering performance evaluation of the response to Hurricane Katrina, re-evaluating the one-percent flood standard for FEMA's national flood insurance program and developing statistical estimation algorithms for network survivability.

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

SPRING 2006
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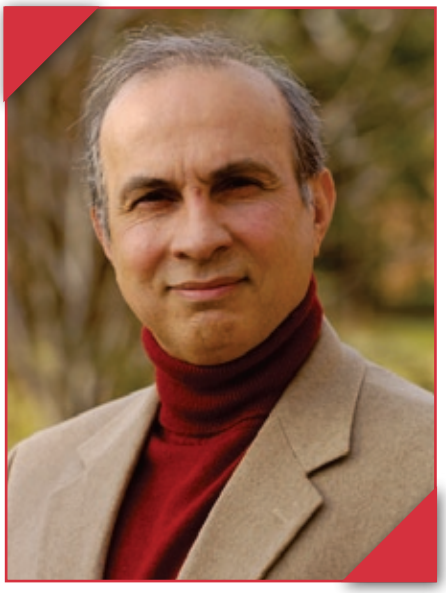
INSIDE

CHAIR'S MESSAGE



WELCOME TO THE LATEST ISSUE OF *CIVIL REMARKS*.

The theme of this issue could very well be humanitarian engineering. As one of our undergraduate students Sheila Xiah Kragie stated in her profile, "We (engineers) have an enormous impact on society, and because of that, a responsibility to it as well."

I could not agree more. And, CEE is certainly doing its part, from the aftermath of Hurricane Katrina to the efforts of our student chapter, Engineers Without Borders, we as a department are making a direct impact on the society around us. In more than one instance, this newsletter and the articles it includes reflect that.

For example, Ed Link, a senior research engineer with our department, has been selected to lead the Hurricane Katrina Interagency Performance Evaluation Task Force, established by the Chief of Engineers of the Army Corps of Engineers. This is an important project that will attempt to not only better understand the devastation that occurred after Hurricane Katrina, but how to better prevent such devastation from occurring again. And, Gerald Galloway, our Glenn L. Martin Institute Professor of Engineering and a former brigadier general with the Army Corps of Engineers, has testified before Congress on the necessity of a national flood policy. Galloway has also been frequently mentioned and quoted in the media, addressing this same issue. He, along with faculty members Gregory Baecher and Allen Davis participated in our panel on "The Lessons of Katrina: What Engineering Can and Can't Do" shortly after the hurricane.

Then, there are our students. Besides the profile on Ms. Kragie, who is committed to improving the world through her work as an engineer, we profile the recent activities of our Engineers Without Borders student chapter. The group provided a new water source to a small village in Ecuador. The villagers greatly benefited, of course. But, so did our students, some in profound ways. I think you will enjoy reading about them and their experiences.

In other news, we are excited to announce that Miroslaw Skibniewski has been named the A. James Clark Chair in Construction Engineering and Management. An accomplished teacher and researcher, he brings much to our department and especially to our Engineering Project Management Program. We also announce the recipients of our faculty and staff service awards and faculty teaching awards. The newsletter profiles Eric Seagren, associate professor, and Wan Chan, IT coordinator, the recipients of the service awards. As I say in the article they both go above and beyond their regular responsibilities and duties. We are glad to honor them in this way. Both are very deserving.

Other articles in this issue introduce our readers to our ENCE 402: Simulation and Design of Experiments course. This course provides our students exposure to the simulation of complex civil engineering systems, better preparing them for the demands of the professional world. And, we profile one of our outstanding alums, Richard Vogel, who has built a successful career with Whiting-Turner and continues to remain involved with his alma mater.

Finally, we say goodbye to a promising young graduate, Perry Laudenslager. Perry's family, friends and co-workers have established a memorial scholarship in his honor. This scholarship will allow students, much like Perry himself who was an enthusiastic and active student, to pursue their educational goals. I can't think of a more fitting honor for a young man who contributed so much to the civil and environmental engineering program and to the university during his time here.

Ali Haghani

Miroslaw J. Skibniewski Named Clark Chair Professor

Miroslaw J. Skibniewski has joined the Department of Civil and Environmental Engineering as professor and has been named the A. James Clark Chair in Construction Engineering and Management. He is also a senior faculty member in the department's Project Management Program. Skibniewski came to Maryland from Purdue University where he was a professor of civil engineering, construction engineering and management. While at Purdue, Skibniewski also served in the university's central administration as director of international research, interim dean of international programs and associate provost.

Skibniewski indicates that his decision to come to the University of Maryland after 20 years at Purdue stemmed from the institution's excellent academic reputation, opportunities offered by the Clark Chair, and the school's close proximity to Washington, D.C.

"Here in College Park, we're in the backyard of our nation's capital city, the seat of government presiding over the world's largest economy and the only remaining superpower in the world," he says. "Numerous national and global institutions are also in our backyard. We are in the midst of one of the largest and most rapidly expanding construction markets in the country. Research establishments, 'think-tanks,' and other institutions able to collaborate with the University of Maryland abound. For this reason, and because of the high quality of its programs, the Clark School is uniquely positioned to play a crucial role as a leading educational and research center benefiting all aspects of the built environment and national economy in general."

With his expertise and experience, Skibniewski brings much to the further expansion of the existing Project Management Program. "There is a rapidly growing demand for well-educated professionals in project management, not only in civil engineering and construction, but in all fields of engineering and physical infrastructure," says Skibniewski. Adding, "Efforts are underway to finalize the new strategic plan for the Project Management Program, which has recently obtained a prestigious, globally recognized accreditation from the Project Management Institute. I am happy to come to the university at such an exciting time."

Of the Clark Chair specifically, he says, "I am certainly grateful to the benefactor of the Clark Chair for his vision and foresight which resulted in the establishment of this first-of-a-kind endowed professorship now more than 20 years ago."

> "I am certainly grateful to the benefactor of the Clark Chair for his vision and foresight which resulted in the establishment of this first-of-a-kind endowed professorship now more than 20 years ago."
>
> — **Miroslaw Skibniewski**
> Clark Chair Professor

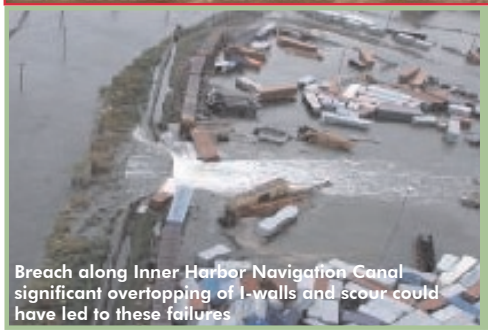
Skibniewski's accomplishments are many and his credentials impressive. For example, he is a past recipient of the National Science Foundation Presidential Young Investigator Award, past president of the International Association for Automation and Robotics in Construction, and editor of *Automation in Construction*, an international research journal published by Elsevier. He has lectured and consulted in more than 30 countries on six continents. He has received research prizes and awards from the American Society of Civil Engineers, the American Society for Engineering Education, the Fulbright Commission and the Alexander von Humboldt Foundation.

Skibniewski's areas of research include construction engineering and management, construction project management, automation and robotics, decision support tools and e-commerce technologies for project management. While in his previous position at Purdue, he was the founder and leader of the e-Construction Group, a multi-institutional research team involving researchers based in the United States, Asia and Europe. The team focuses on the design and development of decision support tools for web-based project management systems and other information technology implementations in construction.

Skibniewski has also performed construction automation research on behalf of Bechtel Corporation in San Francisco and developed an equipment management system for a fleet of construction robotics as well as an automated constructability review system for Obayashi Corporation, a leading engineering and construction firm based in Japan. More recently, he completed a study commissioned by SAP America, the world's largest supplier of Enterprise Resource Planning (ERP) systems for business and industry, focused on optimal strategies for ERP vendors in addressing the needs of the construction industry.

A native of Warsaw, Poland, Skibniewski received his M. Eng. degree from the Warsaw University of Technology. His first full-time engineering job in industry was with the Pittsburgh Testing Laboratory in Pennsylvania, now Professional Services Industries, Inc. His M.S. and Ph.D. degrees are from Carnegie Mellon University, all in civil engineering. A father of three young daughters, he speaks seven foreign languages and is a classical musician.

All photos and maps courtesy: U.S. Army Corps of Engineers



Breach along Inner Harbor Navigation Canal significant overtopping of I-walls and scour could have led to these failures

Repair of Breach on Inner Harbor Navigation Canal – Repairs typically involve deeper sheet piles and/or replacing "I-walls" with more stable "T-walls"

Aerial view

cont. from page 1: Senior Research Engineer Ed Link Selected to Lead Hurricane Katrina Task Force

> "We need to take the lessons we learn and apply them. We can't afford not to."
>
> — **Ed Link**
> **CEE senior research engineer and Hurricane Katrina Interagency Performance Evaluation Task Force leader**

The 10 interrelated tasks include geodetic reference datum; storm surge and wave modeling; hydrodynamic forces; floodwall and levee performance; pumping station performance; interior drainage/ flood modeling; consequence analysis; and risk and reliability assessment.

Each task is the focus of a team co-led by an expert from the Corps of Engineers and an expert from an external organization. In fact, CEE faculty members working with the task force include Gerald Galloway, Gregory Baecher, Bilal Ayub and Kaye Brubaker. Galloway, a former Corps of Engineers brigadier general, is involved with levee technology; Baecher and Ayub with risk and reliability; and Brubaker with storm analysis.

"IPET is using the most appropriate tools and data available to better understand what forces the storm placed on the New Orleans flood protection structures and why they performed as they did." says Link. In doing so, the task force will be looking as much at what didn't go wrong as what did. "We're developing a clearer understanding of the performance of the entire system down there and not just about its failures," he explains. "There was about 350 miles of structures. Approximately 268 miles were exposed to significant storm surge and waves and of that about 60 percent experienced some damage. About 41 miles of levees and floodwalls received serious damage. There's a lot to be learned about what went right." As information is gathered and analyzed, it will be passed along to "ensure that the best information available will be applied to the New Orleans reconstruction efforts," he says.

A significant part of the study, according to Link, is risk and reliability. "We're looking at the level of risk that would be involved in redevelopment in that area and what it would take to reduce that risk," he says. "In fact, the issue of risk is becoming a larger and larger component of what we're expecting to come out of this task force."

As such, IPET is coordinating the physical performance of structures to the consequence of structure performance, including loss of life, economic damage, health and safety issues and environmental concerns. Says Link, "We want not only to answer the traditional question of what can go wrong, but also how likely it is."

Panel Addresses Lessons Learned From Hurricane Katrina

Stresses Need for National Flood Policy

> "My worry is that as Congress is consumed by everything else that is going on, such as the war in the Middle East, we will see the issue of attention to infrastructure fading."
>
> — **Gerald Galloway**
> Faculty member and former brigadier general of the Army Corps of Engineers

Shortly after Hurricane Katrina, the Department of Civil and Environmental Engineering hosted a panel discussion on "The Lessons of Katrina: What Engineering Can and Can't Do." Panel participants included faculty members Gregory Baecher, Allen Davis and Gerald Galloway, as well as other university and outside experts.

Davis addressed the environmental concerns in the aftermath of the hurricane. "We do not have the methods to properly evaluate health risks from being exposed to contaminated flood waters," he says. Adding, "dealing with all the demolition debris may be the biggest long-term environmental problem."

In addressing other issues, the panel discussed not only the impact the hurricane had on New Orleans and the surrounding area, but also the "grave peril" from flood risk for other American cities. Cities such as Long Beach and Sacramento, CA, "are protected only by potentially inadequate levee systems," says Baecher. Other issues included the fact that flood protection across the country is highly variable. The panel also addressed the role of the biennial Water Resource Development Act. Authorized by Congress, the flood protection and water resource projects "have far more to do with politics," according to Baecher, and "bringing home the bacon," than with rational risk management.

The department's involvement with the after-affects of Katrina has not been confined to the panel discussion, however. For example, the department has been awarded a $1.3 million contract (approximately) to support the Corps of Engineers-led Interagency Performance Evaluation Taskforce investigating technical issues related to restoring hurricane protection for New Orleans, with faculty member Lewis E. (Ed) Link serving as principal investigator.

And, Galloway, a former Army Corps of Engineers brigadier general, has testified before Congress calling for a national flood policy. The situation is grave, he says. "Besides lacking a national policy, we also lack knowledge of where these flood protection structures are and their current condition," says Galloway, who has been frequently featured in the media, including in the *Washington Post* and on NPR, CNN, and the History Channel, discussing these issues. Adding, "In many cases, only the people protected by the levees know where they are."

Galloway has been on this road before. Following the 1993 flooding of the Mississippi River, he lead a study and recommended to the White House and Congress a need for a higher level of flood protection. However, as the memory of the flood receded, so did the efforts to prevent another catastrophe. "Now, we're paying for it," says Galloway. Quite literally. According to Galloway, the cost of building bigger and more secure levees would have run roughly $3 billion dollars. The cost of providing adequate protection after Hurricane Katrina and recovering from the hurricane's damages will run roughly in excess of over a $100 billion dollars, he says.

Galloway is concerned that the government, despite being well-intentioned, will again be distracted by other issues as time goes on. "My worry is that as Congress is consumed by everything else that is going on, such as the war in the Middle East, we will see the issue of attention to infrastructure fading." Galloway intends to keep the issue alive as best he can. "My job," he says good naturedly, "is to be a giant pain in the neck to the people on the Hill."

Eric Seagren Chosen as Faculty Service Award Recipient

The Civil and Environmental Engineering Department recently selected Eric Seagren, an associate professor, for the departmental Faculty Service Award. The award is based on "providing service above and beyond the call of duty," says Ali Haghani, department chair.

> "Dr. Seagren's contribution was a significant portion of the reason the department obtained a six-year accreditation without any restrictions."
>
> — **Dr. M. Sherif Aggour**
> Chair of the CEE department's ABET committee

Eric Seagren was chosen for his contributions to the department's efforts to achieve full accreditation from the Accreditation Board for Engineering and Technology or ABET. As chair of the Faculty Development Committee, Seagren along with fellow committee and faculty members, was charged with developing and implementing a plan for meeting ABET's Criterion 3, which deals with educational program outcomes and assessments. "The program outcomes are intended to be statements of what students in the program are expected to know or be able to do by the time they graduate," explains Seagren.

Changes to the ABET requirements also meant that the "entire assessment process had to be developed from scratch," says Seagren, making for an even more demanding and challenging task.

"Dr. Seagren was invaluable in collecting data from most of the faculty regarding the department's 20 educational outcomes," says Professor

CONTINUED ON PAGE 14

STUDENT News

Graduate student **Andrew Churchill** was one of 10 Maryland students, including eight Clark School engineering students and Tau Beta Pi members, who visited the Mississippi Gulf Coast over winter break to help Hands On USA, a disaster relief organization. The Clark School helped fund the students' trip to the region. The duties the students performed included sorting donated materials, gutting houses to be rebuilt and sifting through the debris at a historic mansion in search of lost artifacts

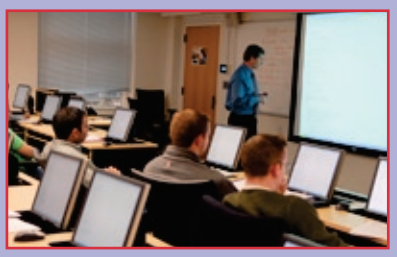
Stacy Eisenman, a transportation engineering doctoral candidate and Maryland Transportation Initiative researcher, was one of five Clark School students and the only CEE major to receive a $15,000 scholarship from the American Rewards for College Scientists Foundation. The award was presented to Eisenman by Supreme Court Justice Kennedy at a special ceremony held at the National Academy of Sciences facility in Washington, DC. Eisenman is pursuing her Ph.D. research in the area of real-time traffic management.

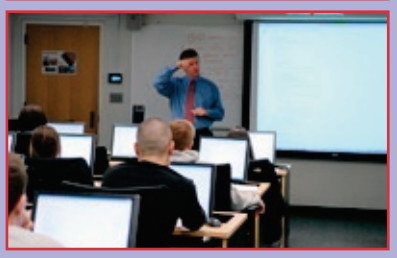
Anubha Goel was awarded second place at the graduate student research poster competition by the Agrochemical Division at the 230th National American Chemical Society Meeting in Washington D.C., for her work entitled, "Modeling the variability in aerial concentrations of atrazine, endosulfan and chlorothalonil at a rural location on the Delmarva Peninsula."

ENCE 402: Simulation and Design of Experiments

Course Prepares Students to Use 'Real Data in the Real World'

ENCE 402 Professor David Lovell





ENCE 402: Simulation and Design of Experiments, according to its instructor, David Lovell, associate professor, is a course in real-world engineering. The relatively new course, which covers the simulation of complex civil engineering systems, provides "students with a tool to study problems that they haven't seen before in textbooks," says Lovell.

"Most of the problems," he adds, "that you find in textbooks are simplified and don't include the complicated bells and whistles, random things that the real world throws at you. ENCE 402 is about using real data from the real world as opposed to somebody's picture of what they think the real world should look like."

Students participating in ENCE 402, which was first introduced into the curriculum in 2004, learn the fundamentals of constructing custom simulation programs using the discrete event paradigm and Monte Carlo methods of generating random variables on a computer. Says Lovell, "Simulation can be used as an effective tool for the design of new or modified systems, or for operational analysis of existing systems." ENCE 402, he adds, gives students the ability to apply knowledge and fundamental principals of mathematics, engineering, probability and statistics and computer programming to the solution of complex problems.

For many of its students, the course is an eye-opening experience. According to Lovell, the most common comment he has heard from students is "Wow, I didn't know you could do things this way!" Students such as Sona Verma. "As I go into my professional career," says Verma, who graduates this spring, "I now know that with any project that I work on it is sometimes easier to simulate and get your answers from the computer instead of spending a lot of money to compile the same results."

In ENCE 402, students not only learn about simulation but are called upon to practice the process with projects of their own. "The final project gave us an opportunity to step outside the classroom and into a real-world setting where simulation may be used," says student Doug Tilley. Tilley's choice for his final project was "simulating the results of the NCAA basketball tournament based on the statistics of the teams involved," he says. "This turned out to be extremely difficult, as it involved a lot of data collecting and an extensive computer program. But, I did get a sense of how simulation can transfer to the real world."

And, "I correctly picked the winner!"

Tilley also found it extremely beneficial in sharing and discussing projects with fellow classmates. "People simulated everything from golf to stream variability," he says. "It was certainly surprising to see the breadth of locations where simulation can be used."

Remembering Perry

Memorial Scholarship Established in Honor of Promising Young Graduate

For those who crossed paths with Perry Laudenslager during his short life, he often made a lasting impression. Perry, who graduated from the university in 2003, is described by those who knew him as a warm and genuinely caring young man "who would do anything for anybody," says his mother, Sherry.

Sherry, Perry and Steve Laudenslager

Pat Klima, vice president of Geo-Technology Associates (GTA), Inc., the civil engineering consulting company Perry went to work for upon graduation, for one, remembers his first meeting with Perry at a university career fair. "Every now and then you walk away from one of these events thinking, 'We need to get this guy.' Perry was that guy," says Klima.

Klima's initial instincts proved correct. "Perry had great potential. He jumped right into his work," says Klima. "He was very enthusiastic and always wanted to learn more. In fact, he was getting ready to go back for his master's degree."

Tragically, just over a year after Perry joined GTA, he died in a car accident. But, the young man who made such an impression on others – family, friends, classmates and co-workers - will be remembered in support of students like himself. In Perry's honor a memorial scholarship has been established, offering others an opportunity at the university where he flourished and held such promise. "I saw Perry grow as an individual when he went away to college," recalls his mother, Sherry. "He just blossomed."

Besides receiving his bachelor's degree in civil engineering from the university, Perry also received a certificate in entrepreneurship, with the hopes of someday owning his own civil engineering firm. A dedicated member of the student chapter of the American Society Civil Engineering (ASCE), he served as webmaster and president for the chapter and was instrumental in revitalizing the organization. Perry also played a significant part in re-establishing the ASCE concrete canoe team, eventually leading the team to a regional first place and an opportunity to compete nationally. He was honored by the department for these efforts.

"Perry just took his college experience and ran with it," says his mother. And, developed close ties. "At the funeral, some of his friends from the university brought a Maryland Terrapin t-shirt and had those who knew him at the university sign it. Later, they framed it and gave it to us," says Steve, Perry's father. "He thought the world of those guys. And, they felt the same."

Rene Marshall (center): the first recipient of the Perry Laudenslager Memorial Scholarship

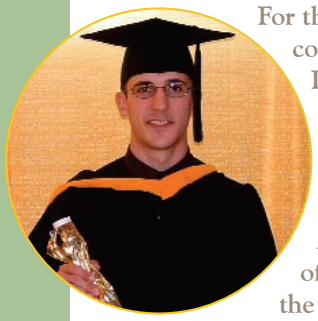
> "At the funeral, some of his friends from the university brought a Maryland Terrapin t-shirt and had those who knew him at the university sign it. Later, they framed it and gave it to us. He thought the world of those guys. And, they felt the same."
>
> — **Steve Laudenslager**
> Perry's father

The endowed scholarship, the idea of Perry's classmates and close friends, will provide an annual scholarship for undergraduate students enrolled in the Department of Civil and Environmental Engineering in perpetuity. Recipients will be required to be actively involved with the student chapter of ASCE and "exhibit leadership qualities." To date, Perry's family, friends and colleagues have raised a little over $20,000 of the $50,000 required to fully endow the scholarship.

Perry's former employers, GTA, are actively supporting the scholarship. So much so, that they gave funds to award to students immediately, instead of waiting until the endowment matures. Says Klima, "We wanted to do something now."

The first two students were recently selected for the scholarship. Perry's parents met with them and were impressed, feeling that Perry would have been pleased with the choices. "We can't give to our son anymore," says Steve. "But, we can help someone else."

And remember Perry by doing so.



For those interested in contributing to the Perry Laudenslager Memorial Scholarship Fund, please contact, Radka Z. Nebesky, Associate Director of Development at the A. James Clark School of Engineering by emailing her at Radka@umd.edu, or call 301-405-8072.

'Humanitarian Engineering'

EWB Provides New Water Source for Village in Ecuador

"These students see so many things going wrong in the world today. They feel that the best way to react to that is by doing good. And, by doing what they are good at through humanitarian engineering."

— **Deborah Goodings**
EWB chapter faculty advisor

In Ecuador Javier Ordóñez grew up in a family of civil engineers, including his father, brother and two uncles, who believed in using their skills to benefit others. "I was taught that engineering wasn't just about money and design and numbers," says Ordóñez. "But, that it was important to invest your time in doing something meaningful."

For Ordóñez it was a lesson he took to heart. Now, as a Ph.D student in civil engineering at the university, he was naturally drawn to the university's chapter of Engineers Without Boarders (EWB). "I was spending my days at the university learning and doing research, but I felt that was something lacking," he says. EWB provided the answer. And so much more.

EWB is a national nonprofit organization dedicated to sustainable development through engineering assistance and training internationally responsible engineering students. The university's chapter was established in 2004 by a civil engineering student and consists of over 60 students from all across the engineering disciplines. The village in Ecuador is the second project the chapter has completed, with the first being in Thailand.

Through the program, Ordóñez has been able to directly impact individuals in his own country. He and his family played a crucial role in arranging for EWB to provide a new water source to a small village in Ecuador. "There was a lack of drinkable water within the community," explains Deborah Goodings, EWB chapter faculty advisor. "The system was falling apart and was shared between several developing communities. During the dry season, January through March, there was very little drinkable water."

The project design and fund-raising took place over spring and summer 2005. The implementation took place during several weeks last August, with students living with families in the village, and consisted of designing and constructing a water treatment, storage and distribution system. The EWB group consisted of 10 undergraduate students, two Ph.D. students, as well as three professionals and a faculty member. For students such as Mai Le and Bitsat Yohannes the experience was life- and career-changing.

"My experience in Ecuador made me realize that there's so much more need in the world than I ever imagined possible," says Le, a sophomore majoring in mechanical engineering. "We're so removed from poverty that it's hard sometimes to imagine that there are people out there without the basic necessities such as clean drinking water." Adding, "I've now decided that after I graduate I want to go into developmental work either full time or continue with Engineers Without Borders as a professional engineer."

Yohannes, a senior in biological resource engineering, was actually considering dental or medical school after graduation. "I was frustrated because I couldn't see the human aspect of engineering or how I could use engineering to help those in need," says Yohannes, who grew up in Ethiopia and spent her summers visiting her grandparent's rural village, where clean and sufficient water was a "major problem." Adding, "I decided to go to dental school or medical school after graduation as I felt that these fields would allow me to have more direct interaction with people and help improve their lives as well."

All Photos of Ecuador courtesy of EWB: http://www.eng.umd.edu/ewb/photos.html

However, "Going to Ecuador and working with people there, changed my outlook towards engineering," she says. "I learned that engineering can improve people's lives in a profound way." Now, Yohannes plans to attend graduate school and study water resource engineering and sustainable development. "I hope to work in international development and water supply related projects around the world and help in improving people's lives," she says.

With EWB, students benefit from immersing themselves in the community and working side by side with those who will benefit most from their efforts, says Peter Chang, the faculty advisor for the project in Ecuador. "By working from the beginning of a project to the completion, students get to see that a project is more than the component that they helped design," he says. "They learn ethics and responsibility. They learn professionalism, and they learn to be sensitive to other cultures. They take those lessons with them for life."

Ordóñez couldn't agree more. "You begin with a design on a computer. And, then you are there in the field," he says, "using your hands, pouring concrete, excavating, and after a couple of weeks you see water coming through this village."

Each student brought back his or her own unique memory from the experience. For Ordóñez it was while "excavating trenches for the pipes. We scheduled three days for it. But the morning we began 150 people form the village showed up to help. We started at 8:30 in the morning

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Engineering a Better World

Xiah Kragie is Committed to Using Engineering Skills to Improve Lives

Undergraduate student Sheila Xiah Kragie doesn't just see the world as it is, but what it could and should be. As she prepares to graduate this spring, Kragie is committed to going out into the world, especially the developing world, and making a difference. And, she will do so as a civil engineer.

"We engineers don't give ourselves enough credit and society doesn't give us enough credit," says Kragie. "We make a real and lasting impact with roads and sanitation systems - all the infrastructure around us that makes society work. We have an enormous impact on society, and because of that, a responsibility to it as well."

A responsibility that Kragie takes to heart. Currently, she is looking to pursue graduate studies focusing on public health, water and sanitation engineering and international emergency relief. It is a passion long-held by Kragie. "In high school I remember always turning to the *Washington Post*'s World News section first," she says. And, she has been actively involved with many different causes, from environmental to human rights issues. However, as a talented high school student, she was also drawn to the studies of math and science and was enrolled in the math and science magnet program at her school.

Early on, she saw a connection between her interest in math and science and her desire to help others. "I saw math and science as useful and practical in that way," she says. More so as she began college and decided to study engineering. "All the great things I was learning in engineering, I felt that I could use to benefit others," she says.

As a young woman with varied interests and pursuits, Kragie was drawn to the University of Maryland and its seemingly limitless possibilities for her. "I knew that Maryland had a good school of engineering, but I also knew that the school offered a wealth of opportunities," she says. "However, I had no idea how much so. Looking back now, I can't believe how much I've fit into this time. I've studied abroad and had two majors and a minor. The university has provided so much to me."

Besides her degree in civil engineering, Kragie, who has consistently been named to the dean's list and is the recipient of numerous scholarships, is also pursuing a degree in economics and a minor in international development and conflict management. While at the university, Kragie has stepped outside the boundaries of the classroom, the campus and her own country to learn and experience as much as she can. For example, during the 2004-2005 academic year, she studied in Spain. "I wanted to learn Spanish," she says simply, and thus immersed herself in the Spanish culture and language. "I was the first person from University of Maryland to go to the Universidad Politecnica de Valencia," she says of the polytechnic university. Today, she is fluent in Spanish.

Also, while at the University of Maryland, Kragie has been a consultant with the International Center for Environmental Finance, where she helped develop comprehensive course materials on environmental finance for water utility managers in the former Soviet Union; a researcher for the Centre for Health and Population Research in Bangladesh, working to model bioaccumulation of arsenic contamination; and a founding member of the university's chapter of Engineers Without Boarders or EWB. EWB is a national nonprofit organization dedicated to sustainable development through engineering assistance and training internationally responsible engineering students.

"I remember feeling that I was learning so much as an engineering student, but I wanted to do more," she recalls of her decision to become involved with EWB. Her first experience with the program was working in Thailand building a health center in a rural hill tribe area. More specifically, Kragie was involved with designing and building a small sanitation system for the health center. "What seemed to us as the most meager of efforts was so appreciated by the community there," she says.

This type of experience and her commitment to it, recently lead to her being the university's sole-permitted nominee for graduate study supported by the prestigious Truman Fellowship in Public Service. Truman Scholars are selected on the basis of leadership potential, commitment to a career in public service, high academic achievement and prospects for continuing academic success. The university is allowed to nominate up to four individuals a year for the scholarship.

As part of her nomination process, Kragie submitted a proposal on ways to reorganize USAID international disaster relief. "I emphasized the importance of preparing before a disaster rather than reacting to it once it happens," she says.

Kragie has seen firsthand in her travels the difference prevention can make. On a more personal level, "I've seen people who suffer from vitamin deficiency, rickets, malnutrition," she says. "All it would take is better nutrition, cleaner water to change their lives for the better. In many ways the solutions are so simple. It's getting them in place that's hard."

But, Kragie is ready for the challenge. "I'm eager to get out there and begin," she says.

> "We (engineers) have an enormous impact on society, and because of that, a responsibility to it as well."
>
> — **Sheila Xiah Kragie**
> undergraduate student

FACULTY NEWS

Dr. Amde M. Amde recently participated in the 30th conference on "Our World in Concrete & Structures - Engaging the Future" in Singapore and received the M.C. Bauchemie Award 2005 for best paper.

Dr. Ahmet Aydilek has been selected as the 2006 recipient of the prestigious ASCE Arthur Casagrande Professional Development Award for his contributions to the area of image-based evaluation of geomaterials, geoenvironmental engineering dealing with flow through porous media and remediation of contaminated soils.

The Casagrande Award is the highest ASCE research award given to a junior researcher in the area of geotechnical engineering. The previous recipients of this award include faculty members from leading engineering programs, including MIT, UC-Berkeley, UT-Austin, Georgia Tech, Purdue, Wisconsin and Illinois.

Dr. Allen P. Davis was recently named a Fellow in the American Society of Civil Engineers. The Fellow designation is considered one of the most esteemed honors that civil engineers can receive from their peers.

Dr. Hani Mahmassani was selected by the Council of the Institute for Operations Research and Management Science for a second three-year term as editor in chief of *Transportation Science*, widely regarded as the most prestigious scholarly publication in the transportation field. Mahmassani's selection was recommended by an international committee tasked with evaluation and review of the editor's performance. Mahmassani's work in evacuation planning was also mentioned in a Sept. 30 article in the *Wall Street Journal* on "Modeling, Simulations Can Help a City Offer More Efficient Exodus."

Three papers by NEXTOR authors, including CEE faculty member **Dr. David Lovell,** won Best Paper Awards at the Air Traffic Management R&D seminar held in June. The Federal Aviation Administration established the National Center of Excellence for Aviation Operations Research (NEXTOR) in 1996 as one of several Centers of Excellence in aviation research. NEXTOR is a consortium of five universities, including the University of Maryland.

Professor **Michael Ball** of the University of Maryland was presented the award in the Traffic Flow Optimization category for the paper titled "Response Mechanisms for Dynamic Air Traffic Flow Management." His co-authors were Avijit Mukherjee and **Dr.David Lovell** from the University of Maryland and Robert Hoffman of Metron Aviation, Inc. Lovell was also presented the award in the Metrics and Performance Management category for the paper titled "Modeling Delays and Cancellation Probabilities to Support Strategic Simulations." His co-authors were Ball, Mukherjee, Amedeo Odoni and Gregory Zerbib of the MIT.

Phillip Tarnoff and the Center of Advanced Transportation and Technology (CATT) have been frequently highlighted in the media. Tarnoff, who is the director of CATT, recently talked about cell phone data tracing with the *Baltimore Sun* in a front-page article. Tarnoff and CATT lab director Michael Pack have also appeared on several local news channels, talking about using cell phone monitoring technology to evaluate traffic. And, Turnoff was interviewed by Vic Rattner from ABC news Washington and has been quoted in the *New York Times* and *International Herald Tribune*.

Faculty and student researchers associated with the **Maryland Transportation Initiative** and several departments and units at the University of Maryland presented more than 35 technical papers and chaired several sessions and committee meetings at the 85th annual meeting of the Transportation Research Board (TRB) of the National Research Council of the Academies of Engineering and Science, which took place in January.

The meeting is the largest conference of transportation professionals in the world, and brings together a wide cross-section of researchers, practitioners and government policy-makers engaged in various facets of transportation engineering, planning, design, construction, operation, administration and renewal of transportation systems, facilities and services.

Dr. Gang-Len Chang leads the Applied Technology and Traffic Analysis Program or ATTAP project with $750,000 of funding. The purpose of this project is to integrate mathematic models with state-of-the-art technologies in ITS to improve traffic safety and traffic mobility. Examples of technologies to be explored include: lane-based dynamic merging control, variable speed control, freeway off-ramp and arterial integrated control, and non-conventional intersection design. Chang was also quoted in *The Capital* newspaper of Annapolis, MD, in an article on "Parole Traffic Study Based on Bad Assumptions," which appeared on the front page. Chang said the 150-plus page report on Annapolis Towne Centre at Parole is potentially flawed because it relies on a national standard rather than local traffic patterns to predict how much traffic the $400 million complex will generate.

The Clark School has earned accreditation for three of its graduate degree programs from the Project Management Institute and the PMI Global Accreditation Center for Project Management (GAC). All three programs are part of Civil and Environmental Engineering. The first engineering school to be so accredited, the Clark School is also one of only three accredited schools in the United States and the sixth worldwide. The programs included in the accreditation are the Master of Science in Civil Engineering, the Master of Engineering in Project Management and the Doctorate of Philosophy in Civil Engineering.

Lewis E. Link, a senior research engineer, and faculty member Gregory B. Baecher, have been awarded $1.3 million dollars for a one-year multi-task study to support the federal government's Interagency Performance Evaluation Taskforce (IPET) investigating the levees and floodwalls that overtopped or breached during Hurricane Katrina in order to provide answers for use in future New Orleans protection project designs.

The U.S. Department of Energy (DOE) has announced that it will fund **NRMCA's** research proposal entitled New Technology Based Approach to Advance Higher Volume Fly Ash Concrete with Acceptable Performance. NRMCA will serve as the principal investigator for this project. The grant is valued at about $200,000 and is expected to begin in April 2006 and last two years. NRMCA's grant is one of eight selected by DOE out of more than 52 proposals submitted.

The project being funded by DOE is a research collaboration between NRMCA, **Dimitrious Goulias,** a professor with CEE, and internationally renowned concrete researchers Nick Carino (retired, National Institute of Standards and Technology) and Anton Schindler from Auburn University. The research will be conducted at the NRMCA Research Laboratory (NRMCA-RL) in College Park, MD, which is nationally recognized for its expertise in applied concrete research over many decades. NRMCA-RL is currently focusing on projects that will have an impact on the ready mixed concrete industry in the short term of less than four years. To pursue this objective, NRMCA-RL is working with universities and renowned researchers on a variety of projects and proposals.

A research team consisting of Christopher Davis, a professor with the Department of Electrical and Computer Engineering, **Stuart Milner,** a research professor with CEE, and Igor Smolyanivov, an associate research scientist, has been issued U.S. patent 6,990,350 for optical wireless networks with adjustable topologies. The research team has developed a method for dynamically configuring the topology of a wireless network that uses both laser and RF wireless connections to allow transmission directions to be changed as dictated by the needs of the network. Moreover, the nodes can be switched from directional to broadcast and back again on an as-needed basis.

And finally, we extend our heartiest congratulations to a few more faculty and staff members on their various honors and awards:

Dr. G.L.Chang
* CEE Department Faculty Teaching Award (2005)

Dr. Chung C. Fu
* Engineering Educator of the Year Award, ASCE MD Section (2005)

Dr. Gerry Galloway
* Election to Honorary Diplomat, American Academy of Water Resources Engineers (AAWRE) (2005)

Dr. Deborah Goodings
* A. James Clark School of Engineering Outstanding Service Award (2005)

Dr. Mark Kaminskiy
* Ford Motor Company Research and Development Award (2005)

Prof. Glenn Moglen
* CEE Department Faculty Teaching Award (2005)

CITE
* Received the ITS America Project of the Year award for CITE Blended Learning courses (2005)

CONTINUED FROM PAGE 8: 'HUMANITARIAN ENGINEERING'

and finished by noon. Everyone was working together, the women and children and elderly folks."

For Yohannes it is a single child that she remembers most. "The daughter of our host family, Juana, who was nine years old, told me through our translator that she wanted to be an engineer like me when she grew up," recalls Yohannes. "The fact that she could think of becoming an engineer because she saw us working there, that was really special and moving for me."

And, there are plans to return to Ecuador. EWB signed a four-year memorandum with the government of the province of Azuay. The agreement will provide EWB with donations of materials and transportation. Ordóñez couldn't be more pleased. "This is about making a real commitment and bettering lives," he says.

ALUMNI News

Norine Walker, B.S. '81 urban studies and '83 civil engineering, received the Conference of Minority Transportation Officials (COMTO) Trailblazer Award. COMTO presented the award at its 2006 Salute to Women in Transportation Luncheon on March 8 in Washington, D.C. The event recognized women who have made significant contributions to the transportation industry in the Washington Metropolitan area. Walker was a project manager for the Woodrow Wilson Bridge Project and is now starting her own business.

W. Jeff Holtzinger, who received his bachelor's degree in civil engineering in 1987, has been elected mayor of Frederick, MD. In his first run for elected office, Holtzinger pulled off an upset victory against a former four-term mayor. In addition to being a licensed engineer, Holtzinger is also a lawyer. He served as assistant city engineer for Frederick from February 1999 to January 2000, when he became city engineer, a post he held until September 2002.

Sarmad (Sam) A. Rihani, P.E., F.ASCE, SECB, a 2002 civil engineering alumnus, has been elected to serve as chairman-elect for 2005-2006 of the Structural Engineers Association of Metropolitan Washington, DC (SEA-MW). He will serve as chairman in 2006-2007. SEA-MW is comprised of 50 structural engineering firms from Metropolitan DC and focuses its activities on business related issues in the structural engineering field.

Rihani is a current member of the Structural Engineering Institute (SEI), and serves on SEI's national Professional Activities Committee which is spearheading the effort of enacting legislation for a structural engineering licensure (SE) in all U.S. jurisdictions. This effort is being undertaken in collaboration with the National Council of Structural Engineers Associations. He has also served as Vice-President and then President of ASCE-Saudi Arabia Section from 1986 to 1988.

In addition to his MS in civil engineering from the University of Maryland, Rihani earned a BSCE from Oregon State University in 1977.

Steven Shapiro, a CEE alumi, wrote an article for the *NYU Real Estate Review*, and was also featured in On-Site (*Washington Business Journal*).

THE CEE DISTINGUISHED SEMINAR SERIES: Fall 2005

Engineering the Earth: A Conservationist's View

Featuring Mark Van Putten, J.D.
President and Founder of Conservation Strategy, LLC

Over the last two decades, considerable effort has been devoted to dealing with environmental problems created by construction of an infrastructure to support economic and population growth around the globe.

Today, many organizations that previously were involved in development are shifting their focus towards restoration of the natural environment. Mark Van Putten discussed his deployment of a grass roots network of conservation activists to achieve national legislative victories, including approval of the plan for restoring the Everglades, protect the Arctic National Wildlife Refuge, reform wasteful and environmentally damaging government practices and bring environmental restoration in balance with infrastructure development.

Sustainability and Capacity Building: Opportunities for Enduring Peace

Featuring Henry J. Hatch, PE

In 1992, Henry J. (Hank) Hatch retired from the Army as a Lieutenant General, the Chief of Engineers and Commander of the U.S. Army Corps of Engineers. He is an active volunteer with several professional organizations; among these are two boards of the National Research Council (NRC, the operating arm of the National Academies of Engineering and Science). He chairs the NRC Board on Infrastructure and the Constructed Environment and the Federal Facilities Council.

He also is active with the American Association of Engineering Societies (AAES) and the American Society of Civil Engineers (ASCE). He chairs the International Activities Committees of both organizations. He is a past National President of the Society of American Military Engineers and currently chairs the Natural Sciences and Engineering Committee of the US National Commission for UNESCO. Hatch earned his Bachelors from West Point and his Masters from the Ohio State University. He is a registered professional engineer in the District of Columbia, an Honorary Member of ASCE and a member of the National Academy of Engineering.

Building on Success and Tradition

Alum Richard Vogel Has Built Successful Career with Whiting-Turner

"I have always wanted to be a builder," says Richard Vogel Jr. However, Vogel's "always" stretches even a bit farther back than most. From the age of three years old, Vogel was accompanying his father, a general contractor in Buffalo, New York, and former student of Cornell's Mechanical Engineering School, on job sites. Later, "I grew up working with large earth movers, bulldozers, road graders," he says. "I was a laborer and fine grade foreman in the summers and also did some surveying."

Vogel, who would go on to receive his civil engineering degree from the University of Maryland in 1972 with high honors, is today senior vice president of the Whiting-Turner Contracting Company. Whiting-Turner is the sixth largest domestic construction firm in the United Sates with an annual construction volume of over $3 billion and 24 offices nationwide. "I work for the best construction company in the world," says Vogel, proudly. "At Whiting-Turner you are given the opportunity to reach whatever goal you aspire to."

Vogel has done just that. During his 34 years with Whiting-Turner, he has successfully managed hundreds of projects. These projects include construction of many foreign embassies in the United States (Singapore, Ethiopia, United Arab Emirates, etc.); institutional and educational projects (240 projects for Georgetown University alone); utility plants and energy projects; bio-technology projects; hospital, health care and life care facilities; corporate headquarters and other office building projects; mall and retail facilities; parking structures; and historic renovations (Mount Vernon Inn); among many others.

Vogel's talent for civil engineering was evident early on. As a student at the university, Vogel focused on structural engineering and transportation engineering, graduating with over 140 credits in just four years and finishing at the top of his class. In fact, after taking a course on materials of construction the first semester of his sophomore year, he received the highest grade in the class and was asked by the professor teaching the course, "if I'd like a job as an undergraduate teaching assistant for him in the course," recalls Vogel. Vogel agreed, becoming a teaching assistant for his last five semesters. The result of his work with the department and his academic accomplishments lead to him being awarded the 1971 American Society of Testing Materials Student Achievement Award.

But, preparing him for his future profession was not the only advantage of attending the university. He also met his future wife, Stefanie, now a professor of immunology at the University of Maryland School of Medicine, in calculus class. "I finished the course with a 95 average, but Stefanie had a 96," he gleefully recalls. "I figured that if she was that smart, I better stay with her." Which he did. The two became engaged the following semester and married a little over two years later "as juniors!" says Vogel.

Vogel and his wife took many courses together, including chemistry, anthropology and other general education courses. "In every class we never had a final grade that was more than one point a part," says Vogel. "Although, we did often get different things wrong." Adding, "For one chemistry final exam everyone was told they could sit anywhere, except we were told that we had to sit a part. And, of course, we still got the same grade."

Following graduation, Vogel joined Whiting-Turner in 1972 and was promoted to project manager in 1974. By 1983, he was vice president, moving up to senior vice president in 1999. He opened Whiting-Turner's Washington office in 1985 and the Northern Virginia office in Chantilly, VA., in 2000. He also went on to earn an MBA in finance from the university's business school in 1980, again with honors.

> "One of the things I like best about what I do is going to a job completion, ribbon-cutting party where the owner announces to the world that Whiting-Turner did a fabulous job that no one else could have accomplished. I also like it when they promise us the next job."
>
> — Alumnus Richard Vogel

"A lot of the projects I have been involved with were very interesting," says Vogel, who manages one of Whiting-Turner's nine divisions, which includes directly managing the Washington office and Northern and Central Virginia offices. "Some in different ways."
For example, "The Baltimore Convention Center and the Joseph Meyer Symphony Hall were two projects that took a great deal of my time in my early career and were very challenging and very successful," he says. "Our first project with Georgetown University, the Edwards Bennett Williams Law Library, also comes to mind. It was the first of 240 projects for Georgetown University over the last 20 years and was one of the catalysts to opening the Washington office of Whiting-Turner. And, dealing with ambassadors and people of other cultures in embassy construction has its own challenges and rewards."
Vogel's projects have received countless honors from architectural and trade associations, including over 50 awards for exceptional craftsmanship. The Washington Metropolitan Subcontractors Association has named Whiting-Turner's Washington office Contractor of the Year four times.

Vogel has returned to his alma mater as a builder, as well. In 2005, Whiting-Turner completed the construction of the Samuel Riggs Alumni Center. And, prior campus projects have included the six-student housing facilities, The Commons, and a major addition to the Robert H. Smith School of Business.

"It is very satisfying," says Vogel, "to see the campus get new buildings that will help in

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CURRENT RESEARCH

Miller-Hooks, Mahmassani Awarded $995,000 to Study European Rail Freight Industry

Faculty members Elise Miller-Hooks and Hani Mahmassani have been awarded $995,000 for a two-year European Commission Coordinated Action study of the European rail freight industry. Both Miller-Hooks and Mahmassani are affiliated with the Maryland Transportation Initiative (MTI). MTI is a cross-disciplinary institute that serves as an umbrella over the broad range of transportation-related activities on campus.

The REORIENT project, which is funded by the European Commission, was established to assess the process of transforming the European railways from nationally fragmented into internationally integrated rail operating systems. More specifically, REORIENT will identify and develop business concepts for trans-European rail freight transport, making it more competitive with road transport. Furthermore, the project will assess the extent to which the European community's inter-operability legislation contributes to successful implementation of the business concepts.

As part of REORIENT, MTI is responsible for providing strategies for identifying and removing technological, cultural, social and managerial barriers facing the implementation of a competitive inter-modal rail freight service across national boundaries. The project also involves coming up with a collaborative decision-making framework by which different entities in different countries, including private service providers, can jointly manage complex systems in real time. This work will eventually support the development of a business case for a private carrier to come in and provide such a service.

Finally, as part of its responsibilities, MTI is serving as coordinator of all network modeling activities needed to support the project. The network modeling platform will support evaluation of different strategies and measures intended to improve the prospects of rail freight in the corridor, as well as improvement of capacity and service levels.

cont. from page 5: Eric Seagren Chosen as Faculty Service Award Recipient

Sherif Aggour, who is chair of the department's ABET committee. "He collected the outcomes, summarized and analyzed them, a process that was quite tedious and time-consuming. However, Dr. Seagren accomplished this with great aplomb."

Besides his involvement with the accreditation process, Seagren, who joined the faculty in 1997, is an accomplished researcher and teacher. Seagren, whose master's degree was in sanitary engineering and his Ph.D. in environmental engineering, focuses his research in the field of environmental biotechnology. Seagren says that he developed an appreciation for the environment growing up in Nebraska and "spending time outdoors with family, friends and my Boy Scout troop and visiting my grandparents' farms."

More specifically, he is conducting research on the in situ bioremediation of contaminated subsurface environments, especially the bioremediation of nonaqueous phase liquid (NAPL) contaminants; the monitoring and evaluation of the performance of biological treatment processes, in particular, intrinsic bioremediation or, more broadly defined, natural attenuation projects; and the development of in situ biological treatment systems for urban stormwater runoff, such as bioretention.

"I think my interest in biological treatment processes stems fundamentally from a fascination with living systems," says Seagren. "I also think it is very interesting to see how we can use naturally occurring microorganisms to achieve our goals of environmental cleanup."

The son of two educators - his mother taught elementary school physical education and his father was a professor at the University of Nebraska, - the choice to pursue a career in academia came naturally. "Teaching was a valued vocation in my family, and I had good role models," says Seagren. And, it was a choice well made. In fact, Seagren was a Center for Teaching Excellence/ Lilly Fellow for the 1998-99 academic year.

"I hope the students that have me in class," he says, "leave the course with a new or renewed interest in learning and some fundamental science and engineering tools that will be useful to them in problem solving during their careers as well as in their everyday lives. I also hope they walk away with an appreciation for the environment, and an understanding of contemporary issues facing the environment and human society."

cont. from page 13: Building on Success and Tradition

teaching current and future students, retain and attract new professors, and continue to improve the image of the campus."

But, his commitment to his alma mater does not end there. He funds the Richard Vogel Scholarship in Civil Engineering, which targets future civil engineers who may go into the construction field. He says, "There are over 65 University of Maryland engineering graduates at Whiting-Turner, and we would like to have many more." He is also a member of the Board of Visitors for the Civil and Environmental Engineering Department; a member of the engineering school's Leadership Task Force; and a former member of the business school's Dean's Advisory Council. And, he teaches seminars for both the engineering and business schools, offering his experience and expertise to students.

"I enjoy teaching," says Vogel. "I enjoy the thought that someone will know something more when I finish a talk that they did not know previously or that might make a difference to them. In fact, I recently had someone come up to me and tell me that he attended an excellent lecture that I gave in 1988. It must have really left an impression on him to remember that."

More recently, Vogel has an even more personal investment in the school. His daughter graduated from the university's business school in 2004 with honors and is now a business consultant for Booz Allen Hamilton. And, his 17 year old son, a National Merit Scholarship semi-finalist who is graduating from high school this spring, "wants to become a mechanical engineer," says Vogel. Among the schools he is considering for college is the University of Maryland.

Perhaps further continuing a family tradition.

Wan Chan Chosen as Staff Service Award Recipient

The Civil and Environmental Engineering Department recently selected Wan Chan for the Staff Service Award. Chan was chosen for his work as the IT coordinator for the department. The awards are based on "providing service above and beyond the call of duty," says Ali Haghani, department chair.

> "The campus environment is addictive. I would find it hard to go anywhere else."
>
> — **Wan Chan**
> **Staff Service Award recipient**

As the department's IT coordinator, Wan Chan is constantly "amazed at the things that are happening in that little box and how our lives depend upon it." For Chan "that little box" often means, "a different day, a different challenge." And then some.

Recently, Wan was responsible for getting the department's design lab up and running. No easy task. But, "Wan worked beyond his normal responsibilities by running wires for network installation, assisting in layout out of the lab, solving problems with desks, projects, power sources, etc.," says Nancy Lapanne, who nominated Chan for the award and is the former director of administrative services for the department.

Adds Lapanne, now assistant dean for finance in the College of Chemical and Life Sciences, "Wan worked nights and weekends and saved the department a lot of money by doing much of this work himself." And, while Chan is continuously amazed at the possibilities offered by technology, he is also quite a fan of humanity. "The people around me are the most rewarding part of my job," he says. "Since all of us work at least eight hours a day, our workplace and colleagues become our second home and family. I am blessed to have a great bunch of people work around me."

His colleagues feel likewise. "He was always a pleasure to work with and no one ever felt embarrassed to ask simple questions, or was made to feel that he was imposed upon for any assistance he provided," says Lapanne. "Wan was available many hours of the day, providing his cell phone number for instant access. And, if he didn't have a solution, he'd work to find one."

Described as a "tireless worker," Chan still finds the time to share photos of his two-year-old son, Eugene, and trade parenting stories, as well as participate in staff events.

Chan received his bachelor's degree in decision information science and is working towards his master's degree in telecommunication management. Both at the university. Prior to joining the department, he was an assistant manager of the coding section for the university's Survey and Research Center.

"I have been on this campus for 11 years as a student and then as an employee," he says. "And, it has been a blast. The campus environment is addictive. I would find it hard to go anywhere else."

We'd Like 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. Also, send the address of any Civil & Environmental Engineering Alumni you know who are not receiving the newsletter *Civil Remarks*.

FIRST NAME _____ MIDDLE INITIAL _____ LAST NAME _____

DEGREE(S) _____ GRADUATION YEAR(S) _____

HOME ADDRESS _____

CITY _____ STATE _____ ZIP+4 _____

POSITION TITLE _____

FIRM ADDRESS _____

CITY _____ STATE _____ ZIP+4 _____

BUSINESS PHONE _____ FAX NO. _____ E-MAIL _____

Alumni News:

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