



THE UNIVERSITY OF TEXAS AT AUSTIN

Civil, Architectural and Environmental Engineering

CAEE alumni news and features

Spring 2011

www.caee.utexas.edu

this issue

CAEE Research Influences Practice [P.3](#)

Academy of Distinguished Alumni Inductees [P.5](#)

Women in Engineering Program Celebrates 20 Years [P.7](#)

CAEE Alumni in Politics [P.9](#)

Academy of Distinguished Alumni Member H.Chik M. Erzurumlu (MS 1962, PhD 1970) was consulted during the erection phase of the 900-ft long center arch span on Portland's Fremont Bridge. The 6,000-ton center arch was raised vertically 160 ft into position with 32 hydraulic jacks.

Chair's Message



Sharon L. Wood

Greetings from Austin! As always, the students and faculty are engaged in a variety of exciting projects, and the newsletter gives us the opportunity to highlight a few.

Atila Novoselac is conducting novel research to model pollutant flows through buildings and human exposure. Since joining the faculty six years ago, he has been instrumental in building three, state-of-the-art laboratory facilities. His work has been adopted into the standards used throughout the US for the design of HVAC systems.

Ozzie Bayrak has worked closely with the Texas Department of Transportation to improve the performance of concrete highway bridges. Not only does his work improve the safety of new construction, he has developed several innovative schemes for repairing existing bridges that have experienced signs of distress.

In October, we inducted ten new members of the Academy of Distinguished Alumni. Each has made significant contributions to the profession and is an excellent role model for our current students. We have also highlighted the careers of three alumni who are currently serving as political leaders.

In recognition of the 25th anniversary of the Women in Engineering Program, we have highlighted four current undergraduates. Each is recognized for their demonstrated leadership through our student organizations.

In light of the economic downturn in Texas, we have been examining ways to reduce the operating budget of the department. One idea is to reduce the frequency of our printed newsletter and rely more on electronic communication. I would greatly appreciate your thoughts on this option. Please complete the short survey on our website: www.caee.utexas.edu

Finally, I would like to thank you for your support of the department. We are deeply grateful for the generosity of our alumni, parents, and friends.

Robert L. Parker, Sr. Centennial Professor in Engineering and Department Chair

Calendar of Events

CAEE Alumni Seminar Series

Join fellow graduates for this year's seminar and earn one hour of professional development credit for renewal of your PE license.

April 13

Austin - Thompson Conference Center

May 6

Dallas - HKS, Inc.

May 12

Houston - ExxonMobil Upstream Training Center



Dr. Chandra Bhat is this year's speaker. He develops mathematical models of how people make decisions about their activity and travel choices. His work helps identify ways to reduce pollution and improve public health.

May 20

Graduation Reception

School of Nursing

Graduating students and their families are invited to attend an open house reception before commencement. Look for an invitation in the mail!

November 11

Alumni Banquet & Academy Induction Ceremony

Etter-Harbin Alumni Center

Announcements & Briefs

New Faculty Profile



Paola Passalacqua
Assistant Professor
Environmental and Water
Resources Engineering

Dr. Paola Passalacqua joins the faculty from the University of Minnesota. Her broad research interests include quantitative analysis and modeling of landscape forming processes, geomorphic transport laws and their subgrid-scale parameterization. She is also interested in multi-scale analysis of hydrological processes and in understanding the dynamics of environmental transport on river networks and deltaic systems. Her doctoral research was focused on the development of methods for channel network extraction from high resolution topography based on tools of image processing. During her post-doctoral research, she worked on the development of a nonlocal fluvial erosion model (using fractional calculus) and on developing theories for environmental flux routing on river networks. At UT, she intends to continue to develop a research program in hydrology/geomorphology and teach courses in stochastic hydrology and advanced methods for data analysis.

Steel Bridge Student Competition



ASCE Steel Bridge Co-Chair Jeffrey Stump helps assemble the steel bridge constructed entirely by students.

The UT steel bridge team qualified for the national competition by placing second overall in the regional competition. During the competition, the students assemble the bridge that they have designed and fabricated and then load it with steel angles to test its strength and stiffness. The 2011 National Steel Bridge Competition will be held May 20-21 at Texas A&M University in College Station.

International Conference on Alkali-Aggregate Reactions (ICAAR)

The 14th International Conference on Alkali-Aggregate Reactions (ICAAR) will be held in Austin from May 20-25 2012. This will be the first time since 1978 that this conference has been held in US. CAEE professor Kevin Folliard and research associate Thanos Drimalas are on the organizing committee. For more information, please visit www.icaar2012.org

Indoor Air Conference 2011 Showcases CAEE

The Indoor Air conference series began in 1978 and is held every three years at locations around the globe. It brings together the best and brightest doing research on indoor air quality from around the world, as well as practitioners and policy makers. In 2008, the University of Texas was selected to organize Indoor Air 2011, and CAEE Professor



Professor Richard Corsi is shown accepting the presidency of Indoor Air 2011.

Richard Corsi was named conference President. Corsi says, "For one week in June (**June 5th to 10th**), the eyes of the indoor air quality world will be focused on the University of Texas. Over the past decade the Building Energy and Environments group within CAEE has risen to be amongst the top programs in the world, and that is clearly reflected in the

selection of UT to organize Indoor Air 2011. Importantly, our great students will also play a key role in implementation of the conference, a wonderful opportunity for professional development, and to showcase our students and program to participants from around the world."

For more, please visit: <http://lifelong.engr.utexas.edu/2011>

Concrete Canoe Wins First Place

The UT Concrete Canoe team placed first overall at the regional competition this spring and will participate in the national competition in June in Evansville, IN. During the competition, the teams are judged on the quality of their oral presentation, their design paper, and the overall



2011 UT-ASCE Concrete Canoe Team

quality of the final product (aesthetics and durability). They also participate in a series of five races – the UT team won the men's sprint and placed in the other four races.

2011 represents the first time in nearly twenty years that both the concrete canoe and steel bridge teams qualified for the national competitions.

Congratulations to our student teams! Hook 'em Horns!

Feature

CAEE Research: from Lab to Community



Assistant Professor Atila Novoselac has helped launch a unique area of research at the nexus of a building's environmental control and its energy efficiency. He is part of the Building Energy and Environments (BEE) group within CAEE.

With a background in Architectural Engineering, his research focuses on building physics and transport phenomena that define building energy efficiency, influence indoor airflow and transport of pollutants and affect thermal comfort and human exposure to pollutants. At UT Austin, he has established his research in the field of pollutant transport and human exposure and recently in the field of energy efficient building systems.

In his human exposure related research, Novoselac evaluates how building occupants get exposed to different airborne pollutants such as viruses and allergens and develops building ventilation systems that reduce this exposure. Furthermore, his industrial/consulting experience in design of building energy systems and his participation in the 2007 Department of Energy Solar Decathlon project enabled him to bridge the gap between his fundamental research in the areas of heat transfer and fluid dynamics and the applied research related to affordable energy-efficient building systems.

Since pioneering research requires high-end facilities for study, Novoselac has devoted a significant amount of time and effort to develop three distinctive labs: a full-scale test room, a test house and a facade thermal lab. The test room is a part of his Air Pollutant and Energy Flow Testing lab for indoor environmental control studies. It is a state-of-the-art environmental chamber that enables various experiments where parameters are controlled, while others are measured. With reconfigurable interior, and heating, cooling, and ventilation systems, this chamber is used to mimic environments such as a residence, office space, classroom, or hospital room.

Along with CAEE colleagues Richard Corsi, Jeffrey Siegel and Kerry Kinney, he developed the nation's first fully-instrumented test house, the UTest House, for combined energy and indoor environment-related studies. It is a three bedroom/two bathroom home built to conduct experiments related to natural ventilation, outdoor particle penetration, energy efficient filtrations, moisture transport, indoor chemistry, and materials testing.

In collaboration with Werner Lang from the School of

Architecture, Novoselac also constructed a full-scale laboratory for testing building facades. This lab was designed to compare the performance of various facade materials and technologies to improve energy efficiency and weather resilience. Architectural and engineering students work together in this laboratory to conduct multidisciplinary research. "There must be collaboration between architects and engineers academically and in the field," says Novoselac.

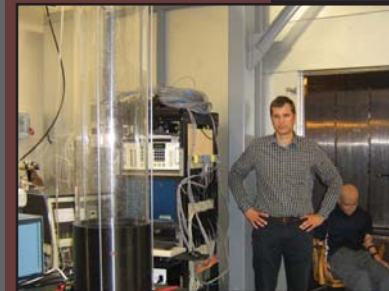
"Architects must like engineering solutions or they won't actually use them."

Novoselac's research contributes to indoor environmental control, human exposure studies, aerosol science, and energy modeling communities. It quantifies how source properties and ventilation affect occupant exposure. Based on the results of his work, human exposure researchers can evaluate the risk associated with the spread of infectious diseases or exposure to different harmful airborne aerosols. Environmental control systems designers can also use the results to select appropriate ventilation systems for different indoor environments.

His research on heat transfer in buildings has been directly implemented into the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Load Toolkit, for building HVAC system design and the EnergyPlus software, which is a widely used energy simulation tool for building performance analyses. He is an active member of ASHRAE and participates in the development of building codes and standards. Novoselac received the ASHRAE New Investigator Award for 2010-11.

Students from Novoselac's group have received prestigious recognition including NSF and Temple fellowships, ASHRAE graduate student grant-in-aid awards, and the CDC/NIOSH award.

A 75-inch beam was built and tested by student researchers for project 5253 at Ferguson Structural Engineering Laboratory, one of the largest structural research facilities in the world.



L-R: The Air Pollutant and Energy Flow Testing lab for indoor environmental control studies, an inventive chamber which mimics real-world conditions, the Building Energy and Environments (BEE) group within CAEE.



Oguzhan Bayrak conducts structural tests at Ferguson Structural Engineering Laboratory (FSEL) that build on the technical achievements of his predecessors. Small-scale beam and column tests conducted by structural engineering researchers in the early 20th century were essential to the development of modern building codes.

While many aspects of the building codes continue to serve the public well, poor performance of large components within relatively young infrastructure systems has highlighted the need to test specimens with dimensions that are more representative of actual bridges.

Physical testing of large-scale structural components is a common theme in all of Associate Professor Bayrak's research, which focuses on understanding the behavior of prestressed and reinforced concrete structures. With improved understanding of structural behavior, his research is primarily directed towards the development of simple design provisions for safe, serviceable buildings and bridges.

Over the past decade, Bayrak has worked closely with Texas Department of Transportation (TxDOT) engineers to study the structural safety and serviceability performance of many bent caps

Moreover, it was believed that Strut-and-Tie Modeling held insights into field reports of extensive diagonal cracking in large bent caps. A research team including Bayrak, graduate students David Birrcher (MSCE 2006, Ph.D. 2009), Matthew Huizinga (MSCE 2007), Robin Tuchscherer (MSCE 2006, Ph.D. 2008) and Professors Jim Jirsa and Sharon Wood was formed to complete TxDOT Research Project 0-5253: D-Region Strength and Serviceability Design. The overall objective of the project was to develop safe and consistent design guidelines in regards to both strength and serviceability of large bent caps and other deep beams.

The research team determined that the best means to improve the design and performance of TxDOT bridge bent caps was to examine test results from specimens that were similarly sized and detailed. An extensive database of nearly 1,000 deep beam tests reported within the structural engineering literature was assembled and analyzed. Despite the large number of tests reported, very few were representative of the deepest bent caps utilized by TxDOT (up to 10 feet deep). For these reasons, 36 tests were conducted on some of the largest reinforced concrete deep beams ever tested in the history of structural engineering research.

Based on the database and large-scale testing efforts, the Strut-and-Tie Modeling provisions were calibrated to improve the strength and serviceability of deep members. Future implementation of the TxDOT Project 0-5253 STM provisions thereby promises to reduce the frequency and cost of bridge maintenance in Texas. In regards to distressed bent caps currently in service, the knowledge gained during the study was also used to develop tools to simplify the structural evaluation of bent caps in the field.

Bayrak's sense of responsibility for public safety is note worthy as well. At the onset of TxDOT Research Project 0-5253, he accompanied engineers from the TxDOT Bridge Division to inspect several bent caps in Houston, one of which was located at I-45 & Greens Road. Soon after, the condition of the bent caps inspected at this interchange was deemed unsatisfactory. The analysis of the structural safety was performed by Bayrak and TxDOT engineers. Houston District engineers, as well as TxDOT Bridge Division engineers, worked closely with Bayrak to get the bent repairs in place expediently.



Flow Testing lab includes a variety of environments. Students use the facade thermal which involving energy efficiency.

within the state. In bridge structures, bent caps are deep beams that are subject to some of the highest demands as they collect and transfer all loads between the superstructure and foundation. His track record in assessing bent cap structural safety is outstanding and of great value to TxDOT.

Since the inclusion of Strut-and-Tie Modeling (STM) provisions in the AASHTO LRFD Bridge Design Specifications in 1994, TxDOT engineers have sought to clearly define the role and benefits of STM in standard bent cap design.

Academy of Distinguished Alumni INDUCTEES 2010-2011

Sergio M. Alcocer, Ph.D. 1991 became Secretary General (Provost) of the Universidad Nacional Autónoma de México (UNAM) in 2007, a position which places him second in command at the country's most prominent educational institution. He is also a member of Mexico's Advisory Committee on Structural Safety. Previously, he served as Director of the Institute of Engineering at UNAM and was Director for Research at the National Center for Disaster Prevention in Mexico City, where he was in charge of structural and geotechnical engineering. In addition to his tremendous administrative responsibilities to UNAM, he is also recognized internationally as a leader in the area of concrete and masonry structures.

James W. Canning, B.S. 1979 is Business Development Manager-Sakhalin for the ExxonMobil Development Company, where he is highly regarded for his leadership skills. He has been responsible for two major streamflood and horizontal drilling projects in Germany, and was the technical manager for ExxonMobil's interest in Girassol, the first deepwater FPSO project offshore Angola. He also served as General Manager for Development in Nigeria, where he was responsible for Erha, ExxonMobil's first deepwater FPSO project offshore. Throughout his career, he has been extensively involved with the Cockrell School of Engineering and he served as chair of the CAEE External Advisory Committee in 2008-09.

Grace Robinson Chan, B.S. 1981 has 27 years of experience working in the public sector at the Sanitation Districts of Los Angeles County, which provides solid waste and wastewater management services to over 5.5 million people throughout the Los Angeles metropolitan region. Her experience includes work in research, long range planning, environmental permitting and compliance, and solid waste and wastewater operations. She is currently the Assistant Chief Engineer and Assistant General Manager and oversees a staff of approximately 2,000 including engineers, scientists, operations employees, and administrative personnel.

John P. Connolly, Ph.D. 1980 is President, Senior Managing Engineer at Anchor QEA, LLC where he determines effective remediation of surface waters. He conducts source allocation studies, develops models of pollutant fate and bioaccumulation, designs field sampling programs and determines approaches to achieving compliance with water and sediment quality standards. He is a member of the National Academy of Engineering and was recognized for his pioneering contributions and expertise in the development of integrated water quality models used for remediation and management planning for large contaminated water bodies.

Jeannie L. Darby, Ph.D. 1988 has distinguished herself in all aspects of academic life including teaching, research, and university, public, and professional service. Her research on UV disinfection has been seminal with regard to the critical factors controlling the disinfection process. She served as Chair of the Department of Civil and Environmental Engineering at UC Davis from 2004-2009, received the first UC Davis College of Engineering Outstanding Teaching Award, and has mentored countless undergraduate and graduate students. She is currently PI on a \$2M project aimed at assisting small water systems in California and co-PI on several other projects. Additionally, she was a founding member of the Center for Women in Engineering at UC Davis.

“The academy allows us to recognize the accomplishments of our graduates from across the world. Members also serve as role models for our current students and provide outstanding examples of the many career opportunities available to civil, architectural and environmental engineering graduates.” -Sharon Wood, CAEE Chair

H. Chik M. Erzurumlu, M.S. 1962, Ph.D. 1970 is Emeritus Dean and Professor of Civil Engineering at Portland State University (PSU). As the founding dean of the Maseeh College of Engineering and Computer Science, he has provided a guiding influence in transforming a pre-engineering program at PSU into a comprehensive college of engineering with an



Class of 2010 (L-R): Robert L. Lytton, H. Chik M. Erzurumlu, Lisa Carter Powell, Fadlo T. Touma, James W. Canning, John P. Connolly, Jack P. Randall, Jeannie L. Darby, Sergio M. Alcocer. Not pictured: Grace R. Chan

enrollment of over 2,000 students. In recognition of his contributions to engineering education and the engineering profession in Oregon and nationwide, he was granted the Fellow status by both ASCE and NSPE and was named a Distinguished Engineering Graduate by the Cockrell School of Engineering in 2007.

Robert L. Lytton, B.S. 1960, M.S. 1961, Ph.D. 1967 is the Fred J. Benson Chair Professor in Civil Engineering at Texas A&M and the Director of the Texas Engineering Experiment Station Center for Civil Engineering. His experience in field, laboratory, and analytical studies and his success at organizing and completing complex and highly significant projects, contribute to his international reputation for creative advances in the analysis and design of foundations and pavements on expansive soils. In 2009, he was elected to membership in the National Academy of Geo-Professionals.

Lisa Carter Powell, M.S. 1987 is Principal Engineer, President and majority owner of P.E. Structural Consultants, Inc., a structural engineering consulting firm founded in 1992 in Austin. With over twenty years of experience in research, development, and design of bridge structures, specialty areas of practice include prestressed, post-tensioned, and segmental concrete construction, high performance concrete, accelerated bridge construction, and aesthetic design. She has served as Project Manager and Project Engineer for a number of prominent bridges and buildings in Texas and is a committed mentor and role model for women engineering students.

Jack P. Randall, B.S. 1972, M.S. 1975 is co-founder of Jefferies Randall & Dewey. After graduation he worked at Standard Oil of Indiana (Amoco) in various engineering operations and management positions before becoming Manager of Mergers and Acquisitions (M&A). He later started his own firm, Randall & Dewey, Inc. where he was the President and CEO for 15 years before it was acquired by a New York Investment Bank, Jefferies & Company. Through its worldwide offices, Randall & Dewey pioneered the merger and acquisition methods now used by the energy industry. During his career, he has initiated and completed over \$100 B in energy transactions. In 2009, he initiated and was the lead advisor on the \$41 B merger between ExxonMobil and XTO Energy.

Fadlo Touma, Ph.D. 1972 is President and CEO of Rashid Materials and Geotechnical Engineering, a group of geotechnical companies that he started in the Gulf area in 1975. The group comprises a consulting geotechnical and environmental company, a site investigation and materials testing company, and a ground engineering and piling company. It employs more than one thousand engineers, scientists and technicians. During that same time period, Touma also founded US-based Engineering and Research International (ERI), specializing in pavement evaluation and maintenance management. He also served as vice mayor for his home town of Kabelias, Lebanon from 1998-2004.

To read about other members of the Academy, please visit: www.cae.utexas.edu/dist-alumni-directory/index.html

Student Spotlight



In 1938, Leah Moncure (BSCE 1937) became the first woman to be licensed as a professional engineer in Texas. Since then, thousands of women have graduated from our department and followed in her footsteps. This year, the Cockrell School of Engineering's Women in Engineering Program (WEP) celebrates its 20th anniversary of helping women develop as engineering leaders. We would like to honor that milestone by highlighting four of our undergraduate students who have shown impressive drive and aplomb in and out of the classroom since their arrival on campus. For more information on the WEP celebration, please visit: www.engr.utexas.edu/wep

Joyce Chiu moved to Sugar Land, Texas from Taiwan when she was 14 years old. Originally interested in studying government at UT-Austin, she was accepted into our program by chance and was immediately intrigued by classroom topics and the engineering atmosphere. Chiu is now an architectural engineering senior and is taking classes in structural engineering, construction and building environmental systems in order to gain a holistic understanding of her major. She is also president of the Architectural Engineering Institute and enjoys the organization's participation in national design competitions and the sense of community it fosters. "I appreciate how hard our department tries to establish communication with students," she says. "They are constantly trying to make our program better on all levels." Chiu plans to go on to law school to study intellectual property or construction law.



Joyce Chiu

A native Austinite, Stacy Holland was drawn to our department's respectability in the engineering community and was influenced by her sister's positive experience here as an undergraduate and graduate student. During her freshman year, she explored a variety of organizations and decided to get involved with the UT-ASCE so that she could get to



Stacy Holland

know more students in her classes, meet professionals in her field, and learn about her future career through hands-on activities. She has served as ASCE president, outreach chair, and Eastwoods Park service project coordinator. "I love the diversity of the department," she says. "I have been able to take classes from excellent professors from a number of areas, making me a more well-rounded student and more versatile individual." Holland encourages all students to get involved and to never be afraid to ask for help. She plans to use her degree to go into environmental remediation.

A salutatorian from New Braunfels High School, Ashley Evans is now serving as ASCE president. Over the past few years, she has held numerous leadership roles within the organization which has encouraged the development of meaningful relationships with peers, faculty, alumni and industry. "I have found that student organizations provided me with a smaller family within CAEE and many opportunities to interact with faculty outside of the classroom and company representatives outside of interviews," she says. Since 2008, she has held two separate internships with TxDOT and one with Alan Plummer Associates, Inc. After graduation, Evans will return to CAEE to further her studies in Environmental and Water Resources Engineering. She hopes to be able to use her multi-disciplinary background to work on today's challenging problems.



Ashley Evans



Maggie Richani

As Vice President of Chi Epsilon, Maggie Richani realized that being an officer of an organization allows for a different undergraduate experience. "You become more aware of the department's policies and many doors open for networking opportunities. It teaches you to grow and mature, and prepares you for the profession," she says. Richani grew up in Beirut and moved to Texas for college since she has family here.

She feels that the department has some of the best faculty who are recognized for their work. She would like to go on and earn a master's in Construction Engineering and Project Management so that she can work in engineering management in the oil or construction industry. "There are many opportunities for women in engineering," she says. "Being an engineer helps you grow, experiment and blossom into a valuable woman in society."

Faculty Achievements



Amit Bhasin

Amit Bhasin received a National Science Foundation CAREER award for his research “Investigating Molecular, Physical and Mechanical Properties that Influence Macroscopic Self-Healing in Asphalt Materials”.



Carlos Caldas

Carlos H. Caldas, was selected as a co-recipient of the 2010 CII Outstanding Instructor Award. The award honors exceptionally effective instructors whose contributions, talent and efforts were recognized by participants in learning activities involving CII educational materials.

Kevin Foliard and **Maria Juenger** received the Wason Medal for Materials Research for a paper co-authored with three UT-CAEE alumni (Kyle Riding, Assistant Professor at Kansas State University; Anton Schindler, Associate Professor at Auburn University; Jonathan Poole, CTL Group). The journal paper, entitled “Effects of Construction Time and Coarse Aggregate on Bridge Deck Cracking,” was published in *American Concrete Institute Materials Journal* in September 2009.

Richard E. Klingner has been selected to receive the 2010 Wilbur C. Schoeller Award from the Structural Engineers Association of Texas (SEAoT). Klingner was recognized for his teaching and research at UT Austin, his investigations of the seismic behavior of masonry structures, and for his leadership on technical committees within the American Concrete Institute, The Masonry Society, and the American Society for Testing and Materials.

Desmond F. Lawler received a 2010 Board of Regents Award for Outstanding Teaching. He was one of 72 faculty members from the University of Texas System, and one of four from the Cockrell School of Engineering, to be honored for demonstrating extraordinary classroom performance and innovation at the undergraduate level.

David R. Maidment was named a 2011 Distinguished Alumnus by the Civil and Environmental Engineering Alumni Association at the University of Illinois, Urbana-



Kevin Foliard



Maria Juenger



Richard Klingner

Champaign. He was recognized “for significant and lasting impact on teaching, research and practice in the fields of hydrology and water resource engineering, including the pioneering of geographic information systems applications in hydrology and technologies that have been adopted by national and international institutions.”

Maidment was also being selected to receive the 2011 Ven Te Chow Award from the ASCE Environmental and Water Resources Institute. This award recognizes individuals whose lifetime achievements in the field of hydrologic engineering have been distinguished by exceptional achievement and significant contributions in research, education or practice.

Charles A. Sorber (Ph.D. 1971) was awarded the Richard Engelbrecht International Achievement Award by the Water Environment Federation (WEF) for his work with the Stockholm Water Prize and the Stockholm International Water Institute’s programs. It was at his initiative that WEF became a Founder of the Stockholm Water Prize, the most prestigious global water award.

Kenneth H. Stokoe, was selected by the ASCE as the Karl Terzaghi Lecturer for 2011. The lecture recognizes an individual for their exemplary contributions to the field of soils and geomaterials and is the highest honor that a geotechnical engineer may receive. He gave the lecture in March at Geo-Frontiers 2011 in Dallas.

C. Michael Walton was announced the winner of the 2011 Theodore M. Matson Memorial Award during the annual Institute of Transportation Engineers (ITE) Distinguished Speaker Luncheon in January 2011. He was recognized for his advancement of the profession through outstanding contributions in the field of traffic engineering.

For more information on faculty awards, please visit:

www.cae.utexas.edu/news-events



Des Lawler



David Maidment



Charles Sorber



Ken Stokoe



Mike Walton

Alumni

Alumni Profiles: Political Careers

Egidio Torre-Cantú MSCE 1981

After earning his bachelor's degree from the Monterrey Institute of Technology and Higher Education, Egidio Torre-Cantú came to UT CAEE to study Construction Engineering and Project Management. He completed his master's degree and returned to Ciudad Victoria, Mexico where he served in local and state government and later built and ran his own construction business, Servicios de Ingeniería Tohesa. Torre-Cantú was appointed Public Works Director for Ciudad Victoria and later



Director of Construction for the State of Tamaulipas. Subsequently, he served as a city councilman and became mayor of Ciudad Victoria in 2000. He was elected governor of Tamaulipas in July 2010 and will serve until 2017. With a vision of building a "state that is strong for all", Torre-Cantú is focusing on four priority areas: public safety; addressing the basic needs of the people of Tamaulipas (through education, health promotion, housing and quality of life improvements); enhancing the state's economic competitiveness (through workforce, investment and infrastructure initiatives); and promoting sustainability through improved urban planning and natural resource protection. In a recent meeting with Governor Rick Perry, Torre-Cantu affirmed his commitment to building strong relationships with Texas and The University of Texas.

Bilal Hamad MSCE 1979, PhD 1990

Bilal Hamad's multi-disciplinary engineering experiences and his ability to work effectively with the community and its institutions have helped him navigate careers in academia and politics. A professor of engineering and former Chair at the American University of Beirut (AUB), he won the position of Mayor in a recent municipal election. As the newly elected Mayor of Beirut, he intends to improve infrastructure as well as modernize the administration and preserve the environment. He is



hoping to address the capital's nagging problems with traffic, parking and lack of green spaces by modernizing public transportation. His engineering background provides him with a scientific, rational approach to problem solving, which he feels he can rely on to achieve his mayoral goals. Hamad earned his M.S. and Ph.D. at UT CAEE, working with Professor James Jirsa on assessing the influence of epoxy coating on the bond characteristics of reinforcing bars. The aim of their research was to develop or revise the existing recommendations for the designs of splices and anchorage of straight and hooked epoxy-coated reinforcement. At AUB, he went on to expounded on this research and also focused on concrete technology and sustainable concrete construction materials.

Hernán de Solminihac MSCE 1986, PhD 1992

Hernán de Solminihac Tampier, former Dean of Engineering at the Universidad Católica de Chile, is Minister of Public Works in Chile. In a ceremony marred by a magnitude 8.8 earthquake and subsequent aftershocks, de Solminihac was sworn into office on March 11, 2010. The earthquake and ensuing tsunami required his immediate attention - he coordinated repair of highways and airports as well as the restoration of potable water and the building of new schools in affected zones so



that students would not miss the school year. His training in civil engineering will continue to serve him well during the upcoming years of post-quake reconstruction. At UT CAEE he worked with Transportation Engineering Professor W. Ron Hudson to complete his M.S. and Ph.D. degrees. He continued his academic career as a professor in the Engineering School at the Universidad Católica de Chile and Director of the DICTUC, a center that makes the knowledge acquired at school available to the community. He has several academic publications, including the book, *Highway Infrastructure Management*. In July 2010, he inaugurated a new \$9.6M highway, Route 9, connecting Puerto Natales to Villa Cerro Castillo, which is expected to increase tourism in the remote area of Patagonia.

Alumni Updates

CAEE alumni have varied professions and interesting careers. Faculty, current students, and fellow graduates are always interested in learning about the lives alumni lead after they leave UT.

If you have an update you'd like to share - a career change, promotion, retirement, marriage or baby, please e-mail Laura Klopfenstein at klopfenstein@mail.utexas.edu or visit our website at www.caee.utexas.edu/alumni



Jade Alyson Yung Hemme celebrated her first birthday in February 2011. She is sitting on father Dan Hemme's (BSARE 2009) set of drawings for a current UT project.

Marco is the son of Susan De Long (MSEWRE 2005, Ph.D. 2009) and Frank Llosa.



Let us know about your future engineer and we'll send you a free t-shirt, compliments of the **Friends of Alec Annual Giving Program.**

40's

Elbert S. Nance (BSCE 1948) worked for American Oil for 36 years and after retirement, moved from Houston to Paris, Texas. Having a license in engineering and surveying, he started his own business and worked another 20 years. Now, at age 89, he does church work and tends a half acre garden.

70's

Tom Rioux (BSCE 1970, MSCE 1973, Ph.D. 1977) and nine other volunteers from central Texas churches travelled to Haiti in October 2010 to help with earthquake recovery by removing debris and donating needed supplies.



80's

Rear Admiral **Phillip Kenul** (MSEHE 1981) is the director of the NOAA Marine and Aviation Operations Centers. In this role, he is responsible for the safe operations of NOAA aircraft and ships as well as the management of a \$100M budget and more than 500 fleet personnel.



Jun Matsumoto (BSCE 1986) is a Senior Water Resources Management Specialist for the World Bank in Kabul, Afghanistan.

90's

Stacy Bartoletti (MSCE 1993) has recently been named Chief Executive Officer of Degenkolb Engineers in addition to his position as President and Chief Operating Officer.

Becky (Culpepper) Carroll, P.E., LEED AP (BSARE 1999) is a Project Manager for Pape-Dawson Engineers, Inc. in San

Antonio. She welcomed her son Carson Brady Carroll on October 21, 2010.



00's

Marc Delao (MSCE 2002) is currently the Commanding Officer of the OICC at Camp Lejeune, North Carolina. He oversees the best-value facilities engineering and acquisition services to the U.S. Marine Corps throughout the eastern U.S.



Vanessa Rosales-

Herrera (BSCE 2004, MSCE 2007) and her husband Humberto Herrera, Jr. are proud to announce the birth of their "future engineer", Camila Itzel Herrera born on May 8, 2010.



Jiann-Gwo Rong (Ph.D. 2002) is CEO of Green Ways Environmental Technology Co. Ltd. in Shanghai, China. The company specializes in water and wastewater treatment systems.

IN MEMORIAM

W. Paul Dunn (BSCE 1962) worked for Aerospace Corporation and led the work on a number of state-of-the-art space vehicle systems.

John A. Focht, Jr. (BSCE 1944) helped McClelland Engineering, Inc grow into a multi-national geotechnical engineering firm.

George C. Love (BSARE 1951) served as project manager for four Johnson Space Center facilities designed by Bovay Engineers.

THE UNIVERSITY OF TEXAS AT AUSTIN
1 University Station C1700
Austin, Texas 78712-0273
512/471-4921
Fax 512/471-0592
caee@enr.utexas.edu
www.caee.utexas.edu

Nonprofit Org.
U.S. Postage
Paid
Austin, TX
Permit #391

photo by: Kathy Rose



• In late 2010, a time capsule buried under T.U. Taylor Hall from 1931 was unearthed. The copper box contained photos of former deans and the building's groundbreaking, as well as a watch fob, a course schedule and a newsletter.

YOU ARE PART OF A TRADITION OF EXCELLENCE

Consider making a gift to maintain that tradition. . .

You can help us continue to recruit outstanding faculty and students by offering incentives like scholarships and fellowships. And in the near future, we'd like to turn our Learning Resource Center into a more collaborative learning space for our current students.

To make a gift to the department, please visit www.caee.utexas.edu and click on the **MAKE A GIFT** link.

If you'd like to establish an undergraduate scholarship or a graduate fellowship in honor of a former professor, please contact Kelsey Evans at (512) 471-6151 or by email at kelsey.evans@mail.utexas.edu.



For more on the Department of Civil, Architectural & Environmental Engineering, or for information on ways to get involved with UT CAEE, please contact Laura Klopfenstein at 512-471-1279, or by e-mail at: klopfenstein@mail.utexas.edu