ALUMNI REGISTRATION

The Department of Civil and Environmental Engineering is always interested in how our alumni are doing. We hope you will take time to complete the Alumni Update information below. Please include information on your recent professional and personal developments, along with a high-quality photo if available. Please email your information to jmueller@lsu.edu or mail submissions to Civil and Environmental Engineering, Louisiana State University, 3418 Patrick Taylor Hall, Baton Rouge, LA 70803-6405.

	Name:	Year of Graduation:
	Home Address:	
	Home Telephone:	Email:
	Company:	Title:
	Business Address:	
	Business Telephone:	
News:		



Civil and Environmental Engineering Louisiana State University 3418 Patrick Taylor Hall Baton Rouge, LA 70803-6405

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Volume 7 • Spring Issue

Message from the Chair

Welcome to another exciting issue of our newsletter. This is our first newsletter for 2008 and we anticipate it to be a very successful year for the department. As a Foundation of Excellence Program, we recognize that growth and productivity earned us this status but we must continue on the same course, always improving and maintaining our focus on avenues for growth.

It is my pleasure to welcome four new CEE Hall of Distinction inductees: John "Jack" Donahue Jr. (1967 LSU CE graduate), J. Tinsely Oden (1959 LSU CE graduate), Ronald "Ron" Rodi (1978 LSU CE graduate), and Recep Yilmaz (1981 LSU CE graduate). The new inductees will be honored at our annual Hall of Distinction banquet, to be held this April. In honoring these individuals, we intend through them to recognize all those who contributed to Engineering excellence.

Also taking place in April will be the Deep South Conference, hosted by the LSU ASCE Chapter and LSU. This exciting event will be held April 3-5 on and around the LSU campus. We encourage all of you to get involved in this conference. Whether



Deep South Conference **Student Highlights VT Framed Resolution River Model Research** Hall of Distinction **Faculty Highlights** Forever LSU Update First AAM Conference

ISSUE HIGLIGHTS

A Foundation Of Excellence Program

as a volunteer, a sponsor, a participant or a spectator, the success of this conference will depend on the combined effort of the ASCE LSU Student Chapter and all of you.

Also, last spring, four Dutch students spent several days in our department cooperating with our students on a research project related to the river model. Details about are highlighted in this newsletter and the additional information can be found through the link provided in the article. We congratulate these fine students on their work.

In closing, I want to bring your attention to the Student and Faculty Highlights sections. In each issue, we strive to recognize the accomplishments of our students and faculty on every level. Several of our students have received scholarships and awards and several of our faculty members have awards and grants. We congratulate all of them on their wonderful achievements and thank them for their contribution to our department's Foundation of Excellence status. Our department's success is due to the accomplished students and faculty who have been and will always be a part of CEE.



March 2008



Dr. George Z. Voyiadjis Boyd Professor, Chairman and Bingham C. Stewart Distinguished Professor

STUDENT NEWS

FUNDING OPPORTUNITIES

Deep South 2008











Students working on this year's concrete canoe for LSU.

Conference Update



The conference is being made possible by support from the local professional engineering community, including Baton Rouge ASCE Branch, as well as several firms. Eleven other ASCE student chapters from Louisiana, Arkansas, Mississippi, and Tennessee will join LSU for this awesome event in the Capital City.

The Concrete Canoe Competition will take place on Friday, April 4 beginning at 7am. The canoes will be launched from Baton Rouge Beach on Stanford Ave. and the courses will be throughout the beautiful LSU Lakes. There are multiple races that each school team competes in, including sprints and endurance races. The canoes will also be judged for aesthetics and there will be a "swamp test" which determines how much it takes to sink the canoe.

Also taking place on Friday at the Baton Rouge Beach will be the Concrete Frisbee Competition and the Mystery Event. The Concrete Frisbee is an event for which each school constructs a "Frisbee" made of concrete and tests the "Frisbee" in accuracy, distance, and how well it stays together. The Mystery Event is just that, a mystery! The rules will be released the day of the event, during which each school will be provided with the materials and directions to complete the event and we will test how well they can improvise!

The Steel Bridge Competition will take place on Saturday, April 5 at the LSU Recreational Center, beginning at 8 am. The bridges will be judged for aesthetics, deflections under applied loads, and how quickly the team can erect it. A course, which is provided to the team in advance, will be mapped out on the gym floor. The school then races to erect the bridge efficiently but in as little time as possible, all the while sticking to the course which includes various boundaries in which they cannot step.

Also taking place on Saturday will be the Surveying Competition which will begin at the LSU Recreational Center and circle around Lakeshore Drive and back to the starting point, testing each teams ability to perform tasks such as taping distances, leveling, and traversing using modern surveying equipment.

The conference will wrap up with a banquet on Saturday night, to be held at the Cotillion Ballroom. At this time, the winners of each competition will be announced along with the overall winner of the conference.

Our Chapter has been, and will continue to be, very busy making preparations the conference. Conference organizers are relying on the support of our engineering community to ensure that this is a successful conference and therefore, if you or your company would like to get involved there are many ways to help. First, the conference will need Professional Civil Engineers from around the region to donate their time and participate as judges for the many competitions. Secondly, sponsors are still needed for the conference and are a vital part in it's success. There are different levels of sponsorship with advertisement opportunities accompanying each level. If you or your company are interested in contributing to the 2008 Deep South Conference, please contact Amanda Hamlin at ahamli2@lsu.edu or Claire Murray at cmurra4@lsu.edu.

For more information on the conference and for the latest event updates, please visit LSU ASCE Student Chapter website http://www.cee.lsu.edu/undergrad/ASCE/index.htm and click on the 2008 Deep South Conference link.

YES, count me in!

I want to donate to the:

o Fluid Mechanics Lab Project o Civil and Environmental Engineering Siess Endowment Fund

Here's my contribution of:

Payment: o Check enclosed — Please make check payable to: LSU Foundation/Civil & Environmental Engineering

o Credit card (Circle one):

Name as it appears on card:

Signature:

Note: If your/your spouse's employer has a Corporate Gift Matching Program, you may be able to double or even quadruple your gift! Please contact the employer's human resource office for more information. Your gift is tax deductible to the fullest extent allowed by law.

o I enclose a matching gift form for my company

First American Academy of Mechanics Conference

June 17-20, 2008

New Orleans, Louisiana

On June 17-20, 2008 the First American Academy of Mechanics Conference will take place in New Orleans, Louisiana. Following this inaugural conference, this event will be hosted in the USA every four years to coincide with the ICTAM conference. This meeting will help the mechanics communities with applications in solids, fluids, bio, etc. to interact and set new challenging concepts and refinements in the existing areas of Mechanics.

This conference will be on all topics addressing mechanics of fluids, solids, biomechanics, macro-, micro- and nanomechanics, etc. This addresses both Characterization and Assessment of Systems and will cover a broad spectrum of topics in solid and structural mechanics, materials, and fluid mechanics. Prestigious plenary lecturers include Gang Bao (Georgia Institute of Technology), Tayfun Tezduyar (Rice University), Ted Belytschko (Northwestern University), Jan Achenbach (Northwestern University), Sia Nemat-Nasser (University of California, San Diego) and John Willis (University of Cambridge). Keynote presentations will be given by Ken Chong (National Science Foundation), Alan Freed (Saginaw Valley State University), Gerard Maugin (University Pierre et Marie Curie), Pedro Ponte Castañeda (University of Pennsylvania) and Robert Lipton (Louisiana State University).



The First AAM international organizing committee invites you to participate in this important conference. Early registration ends on April 30 and therefore those interested in attending are encouraged to register as early as possible. For a registration form and instructions, along with general conference information, please visit the conference website at http://firstaam2008.lsu.edu. You may also contact Julie Mueller at jmueller@lsu.edu with any registration or general conference questions.

o \$10.000 o \$5.000 o \$2.000 o \$1.000 o \$500 o \$250 o \$

Visa MasterCard Discover AmEx

Please send this completed form to: Civil and Environmental Engineering, Louisiana State University, 3418 Patrick Taylor Hall, Baton Rouge, LA 70803-6405 Please fill out the information on the back of this form also.



Campaign Update

007 was a record-breaking year for fundraising for the Civil & Environmental Engineering (CEE) Department. With your help, we were able to increase the number of scholarships and fellowships available to our students. New professorships help us recruit and retain faculty, and this year we have made progress on our goals for improving infrastructure, with the creation of the Wal-Mart Laboratory for the Study of Pollution Control and the John Edlin and Mary Virginia Johnson Materials Behavior Laboratory Equipment fund.

We celebrate our success at becoming a Foundations of Ex- On February 28, Chevron was on campus to make a \$4.75 cellence Program. Of all the programs offered at LSU, only 11 million pledge to Forever LSU. have been selected for the Foundations of Excellence. CEE is



one of the 11, deemed to have sufficient strength to advance to levels that will command national and international attention, heightening LSU's reputation as a rising public research university. Our alumni's contributions help the Department make progress in all areas: student support, faculty support, and infrastructure.

Recent gifts

As part of their \$35,000 gift to the College of Engineering, Fluor Enterprises, Inc., through the Fluor Foundation, donated \$5,500 to the Department in the following areas: \$1,834 contributed to the CEE Enrichment Fund, \$1,833 was given in support of the Concrete Canoe Fund, and \$1,833 went to the Steel Bridge Fund

As part of their \$34,500.00 December donation to LSU, Chevron Products Company made several generous contributions to the CEE program:\$4,000 was added to the ChevronTexaco Scholarship Fund in Civil Engineering, \$1,000 was given in support of the ASCE Deep South Student Conference Support Fund, and \$5,625 went to the CEE Enrichment Fund, where it will be pooled with other donations and used to better the Department.

A private donation by Mr. Lloyd J. Guillory, Jr. was made to begin funding the Lloyd J. Guillory, Jr. Professorship in Civil & Environmental Engineering.

ExxonMobil Corporation included our Department in their designated gifts to the College this year. CEE received \$3,000 towards the CEE Enrichment Fund. ne campaign to

Forever LSU, the Campaign for Louisiana State University, was launched at the end of June, 2006 with the goal of raising \$750 million dollars system-wide by 2010. The Department of Civil & Environmental Engineering's campaign target has been set at \$4 million for the campaign, with a stretch goal of \$8 million. We have raised over \$1 million dollars for CEE so far. With just two and a half years left to achieve our goals, your donations now are more crucial than ever.

For more information about the Forever LSU, please visit www.foreverlsu.org. Also, sign up for the Campaign Update, an electronic newsletter to keep you in touch with exciting news and announcements regarding the campaign.



Welcome to our new Campaign Steering Committee (CSC) Chair, Mr. Ron Rodi. A principal in the engineering firm CSRS. Ron is also Chairman of our Departmental Advisory Committee and has been a member of the Advisory Committee for years. He also serves on the Dean's Advisory Council. Our previous Chair, Mr. Larry McKee, has stepped down as Chair, but will continue to offer his guidance and support on the Committee.

Ben McArdle and Steven Berniard were recently named as recipients of the 2008 ASCE Baton Rouge Branch Scholarship. Every year the Baton Rouge Branch of the American Society of Civil Engineers awards one or more \$500 scholarships which are presented at the annual Engineers Week Banquet. This scholarship recognizes leaders in student activities and other areas of interest as well as academic accomplishments. Mr. McArdle and Mr. Berniard have demonstrated the potential to become leaders in the engineering profession and the American Society of Civil Engineers.

Two students of Dr. Frank Tsai, Borja Servan-Camas and Kevin Tubbs, received prestigious awards from the American Geophysical Union. Mr. Camas received the outstanding student paper award at the 2007 American Geophysical Union meeting and Mr. Tubbs was the recipient of the outstanding student paper award at the 2006 meeting. The AGU student award is one of the best student awards in the Hydrology area and recognizes the student's presentations as being the best among a strong group of student presenters at the meetings. These students set an example for their fellow students and the entire AGU membership. The CEE department congratulates both students and wish them every success in their educational career and beyond.

Gabriel Broussard was awarded a 2008 Donald W. Clayton Excellence in Engineering Award. This award recognizes students who have demonstrated

Wakeel Idewu will receive a PhD Graduate Assistantship Supplement

Department Receives Framed Resolution from VT

Research.

The department received a beautifully framed resolution from the Virginia Tech Department of Civil and Environmental Engineering for Louisiana State University's Virginia Tech Tribute, held in September of 2007. Our faculty, staff and students were honored to host the group of Virginia Tech students and faculty and that weekend will forever remain a great memory for our department and its students.

The resolution is displayed in the Undergraduate Office (Room 3418 Patrick Taylor). It will serve as a reminder of not only the tragic event on April 16 and the lives that were affected by such a senseless tragedy, but also the bond that is enhanced between two wonderful universities.

Those lives lost and those affected by the tragedy, along with the Virginia Tech Civil and Environmental Engineering Department will forever be in our thoughts and prayers.

exemplary character, scholarly accomplishment, leadership and have served as a role model and ambassador for the College of Engineering. Gabriel graduated in December 2007 with Magna Cum Laude honors and finished ranked 1st of 29 students in his graduating class. As an undergraduate, Gabriel balanced with his studies in the classroom with a plethora of part-time design experience at local civil engineering firms. Gabriel is currently pursuing a Masters of Civil Engineering with a focus on Structural Engineering. He is also currently working part-time as an Engineer Intern for Fox-Nesbit Engineering, specializing in the structural design of commercial buildings. He hopes to embark on many technically challenging projects in his future as a professional engineer.

Samantha Danchuk, a Ph.D. Student working with Dr. Clint Willson, is currently on a two-month internship with Applied Science Associates (ASA), Inc. in Gold Coast, Australia. Samantha is being funded by the NSF-sponsored Computational Fluid Dynamics IGERT program here at LSU and is working on developing improved predictive tools for modeling the fate and transport of petroleum hydrocarbons in the Lower Mississippi River. She will be working with ASA on the use of satellite data to test the ability of ocean forecasting models for oil spill trajectories in deep and shallow water. Upon her return to LSU, Samantha will be completing her Ph.D.

from the Donald W. Clayton Endowment. Mr. Clayton is an alumnus of the Craft and Hawkins Department of Petroleum Engineering, and a 1993 inductee into the College of Engineering Hall of Distinction. Supplements are funded through the endowment from Mr. and Mrs. Clayton. The program targets US Citizens or permanent residents with excellent academic records desiring to enter the teaching profession. Wakeel is a most deserving recipient of this award

The CE 4460 class, Design of Bridges took a field trip to the Boykin Brothers Prestress Concrete plant in Baton Rouge on February 28, 2008. Mr. Sam Greenwood, Chief Engineer at the plant guided the students on various fabrication areas and the Quality Control aspects of the plant. The plant has completed fabrication of bridge members for the I-10 Twin spans bridge replacement over Lake Pontchartrain and is currently working on bridge girders for the La. 1 elevated bridge near Port Fourchon, LA. The tour assisted the students in understanding the engineering aspects of bridge girder and pile fabrication. The class is currently divided into 5 design teams in the CE 4460 class to perform final designs for a Senior class bridge project that started with a conceptual design in the Spring 2007 CE 4750 project class. Senior students who attended the field trip were Jeff Sumner, Patrick Roth, Walter Gauthreaux, Amanda Jones, Brett Liuzza, David Underwood, Jason Abendroth, Paul Govan and Jason Field.

STUDENT NEWS



Dutch and LSU Students Collaborate on River Model Research

LSU and TU Delft students celebrate the completion of a successful experiment. Front row (L to R) Nathan Dill, Jos Kuilboer; Back row (L to R) Pieter Nordbeck, Erol Karadogan, Roald Treffers, Marten Hillen, Ryan Waldron, and Joseph Tsai.

ast spring, four students from TU Delft, Marten Hillen, Jos Kuilboer, Pieter Nordbeck and Roald Treffers, spent several days working alongside LSU CEE faculty and students at the Vincent A. Forte River and Coastal Engineering Laboratory. The TU Delft students were in Louisiana from early April through mid-June working on a research project as part of their Master's degree program in Hydraulic Engineering. Their very ambitious research project was to look at the long-term evolution of the birdfoot region and possible interventions that might slow or stop coastal erosion and provide some protection from hurricane events.

The DTU student's first two weeks in Louisiana were spent meeting with individuals from various state and federal agencies, universities and stakeholder groups. "A light bulb clicked about ten minutes into our initial meeting with them and I realized what a great experience it would be if they worked alongside my students on one of the river model experiments" recalls Clint Willson, an associate professor in the department. He adds, "They were excited to get a chance to do more than attend meetings, make calculations, and run computer simulations. It was a win-win situation for all".

The Vincent A. Forte River and Coastal Engineering Research Laboratory, dedicated in 2004, houses a small-scale physical model (SSPM) of the lower 80 miles of the Mississippi River. The SSPM, funded by the LA DNR, is a distorted scale model capable of providing semi-quantitative data and information regarding large-scale river flow and sediment diversions over long timescales. Experimental results from the SSPM are being used along with numerical model simulations to provide insights that can help guide diversion planning and design.

In late May, the DTU students drove up to Baton Rouge and, after a brief SSPM orientation, conducted a "30 year" simulation alongside two CEE graduate students. Dr. Willson says, "The students commented on how interesting it was to see the spreading of the sediment and how the sediment deposition correlated with the discharge peaks (confirming what they had read in papers and reports). They were also very interested in the influence of the flow rates on the hydrodynamics in the marshes." In addition to working together in the lab, the CEE students introduced their new colleagues to such Baton Rouge & LSU landmarks as the Pastime Lounge and the Chimes.

By late June, the project was nearly over, the final report was written, and the four students made several presentations in New Orleans and Baton Rouge including one at LSU held in the CEE department. After this, the four DTU students took a well-deserved road trip through Florida and then flew back to the Netherlands where they made a presentation to their colleagues and sponsors.

Details about the project can be found at http://www.citg.tudelft.nl/live/pagina.jsp?id=6b2dd48c-86fe-4c42-aa0ef0a78b314847&lang=en. In December 2007, Marsten Hillen, was honored by Minister Plasterk of the Dutch Ministry of Education, Culture and Science as the ScienceGuide Student of 2007. Dr. Willson says "Marten felt a little uncomfortable with the award since the project was truly a group effort by all four of the DTU students. He was, however, very happy to see the extra publicity that was generated by this recognition."

FACULTY HIGHLIGHTS

Dr. George Z. Voyiadjis Receives 2008 Nathan M. Newmark Medal

The Structural Engineering Institute and the Engineering Mechanics Institute have chosen Dr. George Z. Voyiadjis to receive the prestigious 2008 Nathan M. Newmark Medal for his "outstanding contributions to the fields of structural mechanics and geomechanics, his fundamental research in constitutive modeling and characterization of damage mechanisms in metals, composites, and soils, and his pioneering contributions in multi-scale modeling and localization problems." The selection committee particularly noted Voyiadjis' development of a number of widely used nonlinear constitutive models for steel as well as ceramics and composite materials.

Former students of Nathan M. Newmark, Hon.M.ASCE, established this award in 1975 for the superior education they received while studying under Newmark at the University of Illinois and for his important contributions in structural engineering and mechanics.

CEE Welcomes Dr. Babur Deliktas

Assistant Professor Babur Deliktas, from Mustafa Kernal University in Turkey, is spending his one year sabbatical at LSU and conducting joint research with Dr. George Voyiadjis. His research is on multi-scale modeling of the nano-structural materials.

Dr. Steve Cai Receives Best Paper Award

The paper entitled "Monitoring of FRP-repair debonding using OTDR Techniques" co-authored by Hou, S., Cai, C. S., and Ou, J.P. is elected as the Best Paper of the Intelligent Sensor and Actuator Symposium as recommended by the Best Paper Award Committee at the ASCE Earth and Space Conference 2008. Debonding failure has been reported as the dominant failure mode for FRP strengthening in flexure. This paper explores a novel debonding monitoring method for FRP strengthened structures by means of OTDR-based fiber optic technology.

Dr. Ayman Okeil and Dr. Steve Cai Receive Grant

Dr. Ayman Okeil (PI) and Dr. Steve Cai (Co-PI) received a grant of \$249,578 for his proposal entitled *Evaluation* of *Continuity Detail for Precast Prestressed Girders*. The projects involves designing, acquiring, and installing a long-term monitoring system on one of the bridges in the John James Audubon project crossing the Mississippi River. The system will employ internal (embedded) as well as external sensors to collect data related to creep, shrinkage, and temperature effects. Data from the monitoring system will be used to assess the performance of the continuity detail recommended by NCHRP 519. The data will be remotely collected for a two-year period duration of the project.



Dr. Michele Barbato and Dr. Ayman Okeil Receive Grants

Dr. Michele Barbato received a grant of \$20,000 for his proposal entitled *A probabilistic performance-based approach for wind-borne debris hazard mitigation.* This project aims at developing a general and novel probabilistic performance-based framework for mitigation of wind-borne debris impact hazard relative to structures located in hurricane and/or tornado prone regions. The integration of probabilistic hazard analysis, probabilistic demand analysis, probabilistic capacity analysis and probabilistic loss analysis will supply a rational basis for new performance-based design guidelines which will lead to more economical and safer structures for wind-borne debris impact hazard.

Dr. Ayman Okeil received a grant of \$20,000 in collaboration with Dr. Hsiao-Chun Wu (EE) for his proposal entitled *Nondestructive Imaging Of Highly-Stressed Zones Using Phased Array Ultrasonic Signals.* The proposal aims to explore a novel nondestructive testing method for thin-walled steel infrastructure systems. At the core of the proposal is a two-dimensional scanning device capable of acquiring ultrasonic signals from a thin steel specimens. Algorithms by which the acquired digital signals are to be processed will be developed to capture unique features related to the state of stress in the tested specimens and help classify them accordingly. Presenting these algorithms in the form of contour plots showing yielded zones will help detect overstressed regions such as the gusset plate that has now been identified as the cause of the failure of the I-35W bridge in Minneapolis, MN, last August.

These grants are given through the Fund for Innovation in Engineering Research from the Longwell Family Foundation.

Dr. Brian Wolshon Receives Award

Dr. Brian Wolshon, Associate Professor in the CEE Department, received the 2008 James M. Todd Technical Accomplishment Medal from the Louisiana Engineering Society. This medal is awarded for distinguished service by an engineer for technological advancement or discoveries that have contributed advancements in engineering.

Dr. Wolshon specializes in the field of highway design and traffic engineering. His research in the operational traffic conditions associated with emergency evacuation has enabled him to measure traffic flow conditions under contraflow operation, information used by the Louisiana Department of Transportation and Development to plan and design emergency evacuations plans for the southern Louisiana. This plan was implemented during Hurricane Katrina and enabled DOTD to greatly reduce the evacuation time from New Orleans. Now, due to the outstanding success of this model, it is being used throughout the United States.

Dr. Kelly A. Rusch and Dr. Barbara C. Benson Receive Award

Dr. Kelly A. Rusch and her former student Dr. Barbara C. Benson received the 2006 Superior Paper Award by the Aquacultural Engineering Society for their paper *Investigation of the light dynamics and their impact on algal growth rate in a hydraulically integrated serial turbidostat algal reactor (HISTAR).* (Aquacultural Engineering 35(2), 122-134). The award was presented at Aquaculture America 2008, February 11th, 2008.

HALL OF DISTINCTION

HALL OF DISTINCTION



Recep Yilmaz (2007) is a worldrenowned expert in Cone Pentrometer Testing (CPT) and geotechnical drilling and is a Senior Vice President for Fugro Consultants, Inc., a 500+ employee geotechnics company and part of the Fugro Group of Companies. As Senior VP, Mr. Yilmaz leads the company's Louisiana,

Houston Exploration, and Los Angeles operations.

Receiving his Masters of Science from Louisiana State University in 1981, Mr. Yilmaz's geotechnics passion and experience began during his studies here. He has performed extensive research for the development and applications of quasistatic and piezometric cone penetration in Louisiana. He also investigated the application of Cavity Expansion and the SHANSEP theory for cone penetration results. Mr. Yilmaz was responsible for the supervision of in-situ testing, correlation of field and laboratory results and the computer software development for North Louisiana Salt Dome investigations. His work also included research for the Division of Engineering Research, United States Department of Energy, and the Louisiana Department of Transportation and Development.

In 1981, Mr. Yilmaz began his career at Fugro Gulf, Inc. as a staff engineer and quickly progressed to Supervisory Engineer. His responsibilities included coordination of CPT field activities and interpretation of results. He worked on the design of embankments, slope stability analysis and supervised construction of evaporation ponds; geotechnical investigation for proposed Onne Fertilizer Plant in Nigeria; growth faults and geotechnical investigation for major industrial complexes in Houston; developed computer programs and plot routines to minimize labor requirements. Mr. Yilmaz also worked on the design of various foundation types related to onshore and offshore structures.

In 1984 Mr. Yilmaz joined Fugro Geosciences, Inc. a leading CPT testing and geotechnical and environmental exploration company within the Fugro organization and became President. Under his leadership, Fugro Geosciences became one of the premier U.S. companies in CPT and geotechnical exploration.

In 2006, Fugro Geosciences, Inc. merged with Fugro Consultants, Inc. at which time Mr. Yilmaz was named as a Senior Vice President to lead the company's Louisiana, Houston Exploration, and Los Angeles operations. He provides oversight for all Louisiana operations including engineering consulting, laboratory testing and field services. Exploration services include In-Situ Cone Penetrometer Testing and Geotechnical Drilling Services. Under

his direction. Fugro's field exploration capabilities have expanded to include cone penetrometer testing, Geoprobe, and a full range of geotechnical drilling services.

Mr. Yilmaz has lead the development and growth of Fugro's drilling and subsurface exploration capabilities, sampling methods, and qualifications which now include soil drilling and sampling, rock coring, angle drilling, lowclearance drilling, groundwater sampling, piezometer installations, inclinometer installations, environmental soil sampling, environmental gas sampling, monitor well installations, development and sampling and recovery well installations.

Mr. Yilmaz has developed, executed, and supervised numerous field exploration programs for a wide variety of projects using hollow stem auger and rotary wash drilling methods, wireline sampling and coring techniques utilizing truck, ATV, buggy and skid-mounted CME (55, 75 and 750), Failing 250 and 1500s and Mayhew 200 drill rigs. Fugro's equipment is capable of drilling to depths in excess of 500 feet and the Fugro exploration fleet is extensive and is usually adequate to accommodate any exploration program or completion schedule.

Accolades credited to Mr. Yilmaz include his recent integral role in securing a \$100 million dollar indefinite delivery, indefinite quantity contract with the Corps of Engineers to assess and rebuild the levees in the New Orleans area. By providing field exploration, laboratory testing and engineering design to support the Corps of Engineers efforts, Mr. Yilmaz's supervision has allowed for an unprecedented coordination of over 20 drill rigs and 5 cone penetrometer testing rigs operating simultaneously.

Another significant recent accomplishment to Mr. Yilmaz's credit is his role in securing a \$2.5 million dollar contract with the Louisiana Department of Transportation and Development for the Interstate Highway 10 - Twin Span Bridge Replacement project for the damage sustained during Hurricane Katrina. His leadership and extensive knowledge were provided during field exploration, laboratory testing and engineering design where two near shore CPT operations performed simultaneously to provide crucial data under an accelerated schedule to facilitate design and construction of the bridge replacement.

Mr. Yilmaz and wife Barbara now reside in Houston, Texas. Their son Timur Yilmaz is a Petroleum Engineer. Daughter Barbara Yilmaz is an LSU graduate from the Dept. of Geology and Geophysics, and currently the Vice President of the Technology Division of British Petroleum Worldwide.



Department Welcomes New Hall of Distinction Inductees

is our pleasure to formally welcome four new inductees to the Department of Civil and Environmental Engineering Hall of Distinction: John "Jack" Donahue, Jr. (2006), Ronald Rodi (2006), J. Tinsley Oden (2007), and Recep Yilmaz (2007). The new inductees will be recognized at the department's annual Hall of Distinction Banquet, to be held on April 10 at the Lod Cook Alumni Center.

The Civil and Environmental Engineering Department established a Hall of Distinction to recognize individuals who have made stalwart contributions to the profession. Candidates are carefully selected based on distinguished professional achievement and service to Civil and Environmental Engineering. Inductees will have made substantial impact in their field and/or to the Department of Civil and Environmental Engineering. In honoring these individuals, the Department intends through them to recognize all those who contributed to Engineering excellence.



John "Jack" Donahue, Jr. highest ratings for safety. (2006) is a local product who earned his Civil Engineering degree Jack has earned recognition as past president as well as from LSU in 1967, and then pursued a founding member of local and state chapters of Associgraduate work in advanced foundaated Builders and Contractors, and he was an ABC Nation design at Tulane University. In tional board member. Jack continues as chairman and 1970, Jack and his father teamed to CEO of DFC, with his son John as president, partner form Spartan Building Corporation Robert Favret as executive vice president as well as vice (SBC) where Jack rose to the post of president of estimating, and wife Maura as vice president

president. After nearly ten years with SBC, Jack left to of business development. start his own company, Jack Donahue Contractors, Inc., in 1979. He opened the doors with three employees and a Jack is profoundly commitment to his community. He has long been an active supporter of a long list of worthy programs, such as the American Heart Association, Habitat for Humanity, American Red Cross, and Lake Pontchartrain Basin Foundation, to name a few. After the most devastating storm in American history, Jack generously opened DFC's doors to the Red Cross, allowing them to open St. Tammany's first Red Cross Hurricane Katrina financial aid center right there in his office. During those first days after the storm, as Jack made sure all of his 53 employees were safe and secure, his office was the distribution point for more than \$2 million dollars of aid to over 2,000 people who lined up at his door. And he didn't stop there. Jack went on to create an organization called Suited for Success where DFC distributed business clothes free of charge to people who had lost their business clothes and needed to get back to work. Jack was featured in a January 2006 CNN special Hurricane Katrina report called "The Silver Lining". The report detailed stories about area business leaders whose selfless commitment to the community was highlighted by both care for their employees and a dedication to rebuilding Louisiana's communities.

\$500 acoustical ceiling job. In 1986, he partnered with long time friend Robert F. Favret to found what was to become DonahueFavret Contractors, Inc. (DFC). Today DFC has 60 employees, is one of the largest in the state and the North Shore's number one construction company, with annual sales of over \$70 million. Over the years, clients have consistently selected DFC because of its reputation for quality work, timely completions, honesty and dependability. DFC has earned the opportunity and honor to build for such national corporations and government entities as State Farm, Hospital Corporation of America, Albertson's, Copeland's, Pep Boys, Target, Best Buy, Circuit City, Lowe's, Office Depot, Embassy Suites, Holiday Inn, Best Western, Sav-A-Center, Rite Aid, U.S. Postal Service, U.S. Coast Guard, and U.S. Department of Agriculture. DFC has been recognized twelve times with the prestigious national awards for excellence in construction, the premier competition acknowledging outstanding construction projects. The company has received awards from the Vieux Carre Commission for ever-mindful restoration of some of New Orleans' most historically significant structures. DFC has consistently earned the Platinum Step Award, awarded by con-

tractors for contractors, recognizing one of the industry's

continued on page 6...

HALL OF DISTINCTION

Jack has been a Commissioner of the Causeway Commission, a chairman and board member on the Public Affairs Research Council, a board member for Center for Development and Learning and Louisiana Association of Business, and member of the Lake Pontchartrain Basin Foundation. The St. Tammany West Chamber of Commerce has named Jack Business Person of the Year for being a leading St. Tammany business professional.



J. Tinsley Oden (2007) is Associate Vice President for Research and Director of the Institute for Computational Engineering and Sciences (ICES) at The University of Texas at Austin. He was the founding Director of that Institute, created in January of 2003 as an expansion of the Texas Institute for Computational and Ap-

plied Mathematics, also directed by Oden for over a decade. He holds the Cockrell Family Regents' Chair in Engineering and the Peter O'Donnell, Jr. Centennial Chair in Computer Systems at The University of Texas at Austin.

In 1959, Dr. Oden earned a B.S. degree in civil engineering from LSU. He then earned a Ph.D. in engineering mechanics from Oklahoma State University in 1962.

Dr. Oden began his research in computational mechanics and applied mechanics in the 1960's. His treatise, Finite Elements of Nonlinear Continua is cited as having not only demonstrated the great potential of computational methods for producing quantitative realizations of the most complex theories of physical behavior of materials and mechanical systems, but also established a new discipline built upon concepts in mathematics, computer sciences, physics, and mechanics. Computational Mechanics has since become a fundamentally important discipline throughout the world, taught in every major university, and the subject of continued research and intellectual activity. Dr. Oden has published extensively in this field and in related areas over the last three decades.

Dr. Oden is the author or editor of 500+ scientific books, book chapters, essays, articles, and conference papers, including 50 books and monographs. He is also an editor of the series, Finite Elements in Flow Problems and of Computational Methods in Nonlinear Mechanics. Among the 49 books and book chapters he has authored or edited are Contact Problems in Elasticity, a six-volume series: Finite Elements, An Introduction to the Mathematical Theory of Finite Elements, and several textbooks, including Applied Functional Analysis and Mechanics of Elastic Structures, and, more recently, A Posteriori Error Estimation in Finite Element Analysis, with M. Ainsworth.

In the arena of political involvement, Jack has served on the St. Tammany Economic and Industrial Development District, St. Tammany Economic Development Foundation, Louisiana Association of Business and Industry's (LABI) Southpac, and along with three other businessmen, created the Business Congress of Louisiana (BCL). He was recently inaugurated into the Louisiana State Senate representing District 11.

Dr. Oden's current research focuses on the development of computational methods for multi-scale modeling, with applications to semi-conductor manufacturing and on computer models for the adaptive control of laser therapies for cancer.

Dr. Oden is a member of the U.S. National Academy of Engineering and National Academics of Engineering in Mexico and Brazil. He serves as Co-Chairman of the Accelerated Strategic Computing Initiative (ASCI) Panel for Sandia National Laboratories. He is a member of the IU-TAM Working Party 5 on Computational Mechanics and serves on numerous organizational, scientific and advisory committees for international conferences and symposiums. He is an Editor of the international journal Computer Methods in Applied Mechanics and Engineering and serves on the editorial board of 27 scientific journals.

Dr. Oden has received numerous awards for his accomplishments. He is an Honorary Member of the American Society of Mechanical Engineers and is a Fellow of IACM, AAM, ASME, ASCE, SES, and BMA. He is a Fellow, founding member, and first President of the U.S. Association for Computational Mechanic and the International Association for Computational Mechanics. He is a Fellow and past President of both the American Academy of Mechanics and the Society of Engineering Science. Among the numerous awards he has received for his work, Dr. Oden was awarded the Computational Mechanics Award from the Japanese Society of Mechanics Engineers, A.C. Eringen Medal, The Worcester Reed Warner Medal, the Melvin R. Lohmann Medal, the Theodore von Karman Medal, the John von Neumann medal, the Newton-Gauss Congress Medal, and the Stephan P. Timoshenko Medal. He was also knighted as "Chevalier des Palmes Academigues" by the French government and holds four honorary doctorates, Honoris Causa, from The Technical University of Lisbon in Portugal, the Faculte Polytechnique in Belgium, Cracow University of Technology in Poland, and the Ecole Normale Superieure de Cachan in France. Dr. Oden has been awarded a Presidential Citation for his outstanding contributions to the University of Texas at Austin, the equivalent of an honorary doctorate. He is listed by the Institute for Scientific Information as one of the most highly cited researchers in the world from 1981-1999 in refereed, peer-reviewed journals.



Ronald "Ron" Rodi (2006) was born and raised in New Orleans. He attended Louisiana State University and received his Bachelor

Twenty years ago, two young engineers decided to beof Science in Civil Engineering from come partners. In 1988, Michael Songy (a 1979 LSU CE) the Department of Civil & Environand Mr. Rodi began Rodi & Songy Inc. From one emmental Engineering in 1978. During ployee to twenty in four years, they were both beginning this time at LSU, Mr. Rodi served a to see the fruits of their joy and labor. Then in 1992, they term as President of the ASCE Stutook what most considered an unlikely venture.... Rodi & dent Chapter, not realizing the future network he was Songy merged with Chenevert-Soderberg Architects to building with the engineering community beyond the cambecome one of the area's few jointly-owned A/E firms. pus. CSRS. Today, the firm has grown to 65 full-time employees providing civil engineering, land surveying, architec-Upon graduation in 1978, Mr. Rodi remained in Baton ture and program management to clients throughout Lou-Rouge. Not long thereafter, he landed the job of his isiana.

dreams. As a young engineer, Mr. Rodi had the opportunity to work under the tutelage of C. Carter Brown, one of Mr. Rodi's professional memberships include the Louisithe pillars of the Louisiana engineering profession. The ana Engineering Society, of which he has had nearly 30 years Mr. Rodi spent there as an EIT and PE not only furyears of active service including serving as Baton Rouge thered his engineering skills but instilled in him a distinct Chapter President, State Private Practice Group Chairsense of professionalism and business acumen. As icing man, State President and State Legislative Chairman. He on the cake, Brown & Butler frequently designed projects is also a member of the American Society of Civil Engifor LSU, and Mr. Rodi would soon be immersed in many neers, the American Water Works Association, the Nasmall yet intriguing campus projects that would continue tional Society of Professional Engineers and the Water till this day. It was also during this time that Mr. Rodi be-Environment Federation. Mr. Rodi is a registered engineer came deeply engaged with the Louisiana Engineering Society. One of the former advisors to the ASCE Student in two states. Chapter, Jim Porter, recommended Mr. Rodi for the Throughout his career, Mr. Rodi has had the privilege and "highly esteemed" position on the public relations committee. Little did he realize that his initial commitment in this on a volunteer basis for LSU. His engineering experiorganization would lead to nearly 30 years of active involvement, including being honored as their 1984 Outof the LSU System span nearly 30 years. For the past standing Young Engineer, presiding as State President for the Society's Centennial and continuing to this day to serve as the State's Society's Legislative Chairman.

Shortly after Mr. Brown retired, Mr. Rodi resigned from Brown & Butler, and in 1985 began his private practice. The friendships he had made at LSU and the professional relationships he had built over his short career helped to sustain Mr. Rodi in the early years of his fledgling practice. Over the next few years, Mr. Rodi had a brief stint of civil engineering graduate courses, and served one semester as an Adjunct Instructor in the LSU CEE Departfour years as part of the Forever LSU Campaign. ment.... all at the time of trying to support a young family. Despite the sagging Louisiana economy, it was an excit-Mr. Rodi's active and committed involvement in the Coling time, including the advent of personal computers, lege of Engineering and the Department of Civil and Enviwhich enhanced the ability of young engineers to compete ronmental Engineering here at LSU is an awesome eviwith the more established firms. Mr. Rodi became more dence of his love for this university and his enthusiastic invested in the Baton Rouge community during that pededication to it's continued success. riod, particularly in the Greater Baton Rouge Chamber of Commerce serving for nearly five years on the Chamber's Mr. Rodi and wife Renee have two sons, James and Mat-Drainage Task Force. This experience reunited Mr. Rodi thew and reside in Baton Rouge. Both are currently purwith his LSU hydrology professor, Raphael Kazmann. suing degrees at LSU. This forum and the opportunity to work side-by-side with

Prof. Kazmann further instilled in Mr. Rodi that the sound practice of engineering requires both professional inquiry and scrutiny.

good fortune of working as both a consulting engineer and ences for the Baton Rouge campus and other institutions eight years, he has served on the College of Engineering Industrial Advisory Board and is currently serving on the Dean's Advisory Council. On the departmental level, he is currently serving on the Civil & Environmental External Advisory Board and CEE Campaign Steering Committee. The former provides vital input to the Department regarding important developments in business and industry and gives suggestions for visibility, planning and function for the Department. The CEE Campaign Steering Committee, of which he is now heading, is responsible for planning to raise at least \$4 million for the Department over the next