

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: _____ Graduation Year(s): _____

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

ADDRESS SERVICE REQUESTED

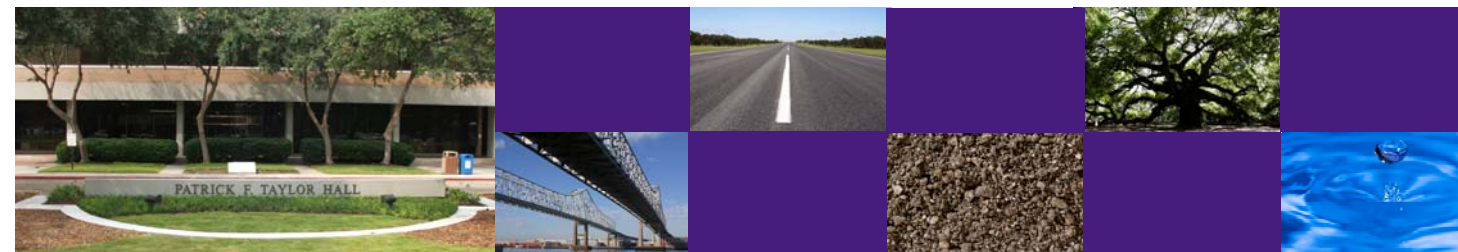
Non-Profit Org
 U.S. Postage
 PAID
 Permit No. 733
 Baton Rouge,
 LA



Department of

Civil and Environmental Engineering

LOUISIANA STATE UNIVERSITY



Volume 7 • Summer Issue

July 2008

A Foundation Of Excellence Program

Message from the Chair

I welcome you again to the latest issue of our newsletter. Our department has been going from strength to strength and this is due partly to the efforts and achievements of our students and faculty. In my opening statement this month, I would like to summarize these distinctions.

The LSU Student Steel Bridge Team has won second place in the Deep South 2008 Conference. In addition, LSU students competed and took top honors in the 2008 Geo-Institute of ASCE Student GeoCompetition. We deeply congratulate them on these great achievements. Two of our students won Clayton Engineering Awards in the College of Engineering at LSU. We also congratulate them.

The First Louisiana Coastal Engineering Conference, jointly sponsored by the ASCE Baton Rouge Branch, Louisiana Department of Natural Resources and LSU, was hosted in Baton Rouge from May 29-30 of 2008. More than 150 practicing civil engineers from consulting firms and government agencies in Louisiana and other states participated in the two-day conference. Four LSU faculty members, Dr. David Constant, Interim Dean of College of Engineering, and Drs. Q. Jim Chen, Clint Willson and Guoping Zhang from the Civil and Environmental Engineering Department at LSU were among the invited speakers. The conference was a great success, which will continue next year and serve the pressing needs for coastal engineering in the Louisiana hurricane protection and coastal restoration.

The Louisiana Board of Regents has accepted the Letter of Intent for offering MS and PhD degrees in the area of Coastal Engineering. Full proposals have been written for an MS in Coastal and Ecological Engineering, which will be housed in the Department of Civil and Environmental Engineering, and a PhD in Coastal Engineering Sciences. These proposals will be submitted to the Board in the Fall of 2008 for final approval. We anticipate the first graduates to receive MS degrees in academic year 2009-2010. The Department will also be advertising soon for the endowed chair in Coastal Engineering that is expected to be filled in the Fall of 2009.

The Department also hosted the First American Academy of Mechanics Conference in New Orleans in June 17-20, 2008. Distinguished Plenary and Keynote speakers from around the world were invited from all disciplines of mechanics and engineering science to attend this inaugural conference. Several faculty from LSU organized special symposia in this conference. In the future the conference will be hosted every four years in the continental USA.

A new University Transportation Center has been launched by Dr. Brian Wolshon on Evacuation and Transportation Resiliency. This was made possible by the very active support of the Louisiana Department of Transportation and Development.

Finally, I would like to congratulate all of the students who have graduated at the Spring 2008 Commencement. We wish them all successful and prosperous careers in the future.



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

ISSUE HIGHLIGHTS

Student News	2	Faculty News	5
Spring Commencement	2	University Transportation Center	6
Deep South Results	3	Evacuation Models & Dynamic Project	7
GeoCompetition	4	Hall of Distinction Banquet	8
		Forever LSU Campaign Update	10

CEE Spring 2008 Commencement

The Department would like to congratulate all of our 2008 Spring graduates who, along with family and friends, attended the May 2008 commencement ceremonies.

Students Receiving University Honor

Megan Elizabeth Drewes received the **University Medal** for "Highest Academic Achievement" for graduating with a perfect 4.0 grade point average.

Besart Dibra, Megan Elizabeth Drewes and Joseph Michael Lefante graduated **Summa Cum Laude**, an honor bestowed upon students who graduate with a grade point average between 3.9 and 4.0.

Benjamin Michael Curole, Ashley Nicole Dyess, and Amanda Kay Jones graduated **Cum Laude**, an honor bestowed upon students who graduate with a grade point average between 3.70 and 3.79.

Bachelor of Science in Civil Engineering

Jason Lee Abendroth
Stuart Marshall Adams
Christopher David Buckel
Christopher Michael Curole
Jourdan Mark Despot
Erik Renè Diaz
Besart Dibra
Megan Elizabeth Drewes
Ashley Nicole Dyess
Travis Ryan Estess
Toby Jacob Frugè
Ryan Charles Gascon
Walter Gordon Gauthreaux

Paul Bradford Govan
Thad Joseph Guidry
Monica Alyssa Haslauer
Daniel I. Henriquez
Erin Elizabeth Hopkins
Amanda Kay Jones
Michael Joseph Juneau
Nicole Danielle Landry
Joseph Michael Lefante
Benjamin Luke Lenard
Brett Charles Liuzza
Daniel Harry Mason
Katie Ann Mistretta

Justin Michael Moreau
Brandon Joseph Nissing
Jesse Daniel Noel
Bryan Robert Nuss Jr.
Sara Melissa Palliser
Scott Michael Poirrier
Adam Daniel Rinehart
Patrick Joseph Roth
Shane David Singletary
Jeffrey John Sumner
Blake Elliot Vutera
Andrew Keane Woodroof

Bachelor of Science in Environmental Engineering

Brian Vanleer Baggett
Chrystal LaShaun Beasley
Heisha Natalia Caolo

Charles Ryan Degatur
Delwyn Lance Mitchell
Heather Jackson Owens

Benjamin Aaron Tassin
Cassandra Marie Wiggins

Master of Science in Civil Engineering

Brian Sidney Johnson
Md Sharear Kabir

Paul Joseph Kocke Jr.
Vamshi Krishna Mudumba

Kowndinya Bose Pasupuleti
Ryan Lee Waldron

Doctor of Philosophy in Civil Engineering

Amin Hisham Almasri
"Dynamic Shear Bands in Metals under High Strain Rates" (Bingham Cushman Stewart Distinguished Professor, Boyd Professor George Voyiadjis)

YES, count me in!

I want to donate to the:

- Civil and Environmental Engineering Siess Endowment Fund
 Fluid Mechanics Lab Project
 Other (please designate) _____

Here's my contribution of:

- \$10,000 \$5,000 \$2,000 \$1,000 \$500 \$250 \$_____

Payment:

- Check enclosed

Please make check payable to:

LSU Foundation/Civil & Environmental Engineering

- Credit card (Circle one): Visa MasterCard Discover AmEx

Account number: _____

Expires: ____/____ - ____/____ - ____/____

Name as it appears on card: _____

Signature: _____

- I enclose a matching gift form for my company

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.

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.

The **John E. & Nellie J. Bastien Memorial Foundation** gave an additional gift to support the Department through the Chester P. Siess CEE Departmental Enrichment Fund.

We would like to thank each and every one of you who chose to give back to the Department this year.

A special thank you goes out to **Mr. William M. Kazmann, Ms. Judith A. Siess, Dr. Kenneth McManis, Mr. and Mrs. Arthur K. Barton, III, and Mr. Lloyd J.**

Guillory, Jr. for your considerable help this year in bettering the CEE Department.

Our success is dependent on your support. Your gifts make the difference. Together we can make the LSU Civil & Environmental Department one of the best in the U.S.

For more information about the FOREVER LSU campaign and information on the latest campaign developments, please visit www.foreverlsu.org.

We would like to challenge every one of our alumni and friends to consider making a gift, no matter what size, to make you a part of this vital Forever LSU campaign and help improve our department.

Gifts of via check, money order, wire transfer, and credit card are welcomed, as are appreciated stock and real estate donations. You can also make a planned gift to benefit CEE now or later.

For more information, please visit www.foreverlsu.org or contact Don Eisenberg, our donor investment advisor, at 225.578.2441 or eisenberg@lsu.edu.



Campaign Update

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 as our part of the FOREVER LSU, capital campaign. At the close of fiscal year 2007-2008, we have raised over \$1.3 million dollars for CEE. *With just two years left, your donations now are more crucial than ever.*

Progress this year included the founding of a new professorship (the **Lloyd J. Guillory, Jr. Professorship**) to help recruit and retain top-notch faculty, and we moved forward on our goals for improving infrastructure with the creation of the **Wal-Mart Laboratory for the Study of Pollution Control** and the **John and Mary Johnson Materials Behavior Laboratory**. Donations were also made to support various existing scholarships.

This brings to mind the questions, "Where does the money go?" and, "What does the money do?" *Unrestricted gifts* of any amount are most welcome. These gifts are used to support the overall operation and unanticipated expenses of the Department and allow maximum flexibility in covering areas of greatest need. *Directed gifts* go wherever the donors tell us they want it to go. This past fiscal year, donations were made to 12 major funds:

Dr. Frank J. Germano Memorial Scholarship

Established in the memory of Dr. Germano, awarded to a high-achieving CEE student (sophomore-senior) selected by a departmental selection committee

Chester P. Siess CEE Departmental Enrichment Fund

Endowed for the perpetual support of the Department, income from this fund allows the Department Chair flexibility to address the most pressing needs of the Department

Dr. Ray Kazmann Memorial Scholarship Fund

Established in the memory of Dr. Kazmann, awarded to a high-achieving CEE student on a year-to-year basis

CEE Enrichment Fund

Addresses most urgent current needs in CEE

McDermott Scholarship Fund

Established as part of McDermott International's Aid-to-Education program, administered through Financial Aid

Steel Bridge Fund and Concrete Canoe Fund

These funds support our students' participation in regional and National ASCE competitions with other universities

ASCE Deep South Student Conference Support Fund

Hurricane Center Enhancement

Supports research, training, staffing, and other needs of the LSU Hurricane Center

RG Kazmann Center for Graduate Studies Fund

Helps provide resources and improve the learning environment of our graduate students

ChevronTexaco Scholarship Fund in Civil Engineering

Established to reflect ChevronTexaco's strong commitment to education, awarded to one or more deserving students

Lloyd J. Guillory, Jr. Professorship

Established by alumnus, long-time supporter and leadership volunteer, Lloyd Guillory, to help attract and retain quality faculty.

Annual Summary

The much appreciated funds raised this fiscal year for CEE resulted from both corporate and individual gifts.

As part of their generous December donation to LSU, **Chevron Products Company** contributed to the CEE program, adding to the ChevronTexaco Scholarship Fund in Civil Engineering, and supporting the ASCE Deep South Student Conference Support Fund, as well as the CEE Enrichment Fund. Chevron also supports the College by matching their employees' gifts, effectively doubling every Chevron employee's gift to LSU.

As part of their annual gift to the College of Engineering, **Fluor Enterprises, Inc.**, through the Fluor Foundation, donated to the Concrete Canoe Fund, the Steel Bridge Fund, the ASCE Deep South Student Conference, and to the CEE Enrichment Fund where it will be pooled with other donations and used to better the Department.

Showing their commitment to engineering education, **GEC** donated to the CEE Enrichment Fund.

McDermott, Inc. made an additional gift to the McDermott Scholarship Fund.

ExxonMobil Corporation included our Department in their designated gifts to the College this year, giving to the CEE Enrichment Fund. The **ExxonMobil Foundation** generously provides a 3-to-1 match for universities, quadrupling gifts from employees, retirees, and surviving spouses.

Deep South 2008 Conference Results



We would like to congratulate all who participated in the 2008 Deep South Conference, held here at the LSU campus April 3-5th.

The LSU Student Steel Bridge team won 2nd place overall and has been invited to compete in the 2008 National Student Steel Bridge Competition hosted by The University of Florida. In the Surveying event the LSU team took 2nd place and in the Concrete Canoe event placed in three race events and took 4th place overall. In the Concrete Frisbee event, the LSU team placed 3rd.

The complete results from the conference competitions can be found on the LSU ASCE Student Chapter website (<http://www.cee.lsu.edu/undergrad/ASCE/index.htm> click on "2008 Deep South Conference").

The LSU ASCE Student Chapter did an outstanding job hosting this event, which would not have been possible without the generous sponsors: Fluor, Kimley-Horn and Associates, Inc., Engen-s Engineering and Consultants, and ABMB Engineers, Inc.

We thank all of you who contributed to the success of this conference.

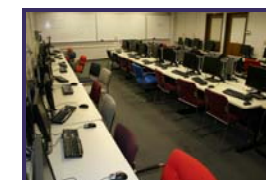


National Steel Bridge Competition

The Steel Bridge team was invited to compete in the 2008 National Student Steel Bridge Competition hosted by The University of Florida. The conference was held in Gainesville, May 23rd and 24th. This was LSU's 6th year in a row competing in this national competition.



The Computer Lab in Germano Center Gets an Upgrade



The Civil and Environmental Engineering Department's Computer Lab in the Germano Center has been significantly upgraded this fiscal year. Thirty three of the thirty eight computers were replaced with new, dual-core, 2Gb RAM machines. This brings the lab up-to-date and is now a state of the art resource with enhanced communication capabilities.

The Germano Center has served as the hub of activity for the undergraduate program for over 20 years. It is dedicated to the memory of Dr. Frank J. Germano and consists of a computer lab, a conference room, a student study area, and offices for the Student Chapters of ASCE and LWEA. The center provides a focal point for student-student and student-faculty interaction and plays a significant role in developing esprit de corps among the student and the faculty.

Over the years, state as well as private industry, and other donated funds have been used to maintain and upgrade the facilities.

2008 Geo-Institute of ASCE Student GeoCompetition



Eleven university teams competed in the Geo-Institute of ASCE student GeoCompetition at the New Orleans 2008 conference in March 2008. The Louisiana State University (LSU) Tigers took top honors, beating two-time reigning champion University of Missouri – Columbia. The Drexel University GeoDragons took second place honors. As winners, the LSU team took home the prestigious Atterberg Cup.

The competition promoted geotechnical engineering and fostered teamwork in engineering design. Students prepared design papers and plans in advance, from which eleven teams were invited to GeoCongress 2008 to compete. At GeoCongress 2008 they competed head-to-head to build a model reinforced-soil (MSE) retaining wall inside a plywood box, using sand as backfill, poster-paper as the wall facing, and paper strips as soil reinforcement. The design goals are to satisfy MSE wall construction standards in a timely fashion and sustain a 23kg. (50 lbs) surcharge, while minimizing the amount of paper reinforcement. Points were awarded for the paper, the design, the speed of construction, and the wall performance.

The LSU team advisor was Dr. Khalid Alshibli and team members included Alsidqi Hasan (team captain), Rick Nugent, Carrie Heffron and Mark Korinek.



CEE Students Receive Clayton Engineering Awards

Two Civil and Environmental Engineering students, Gabriel David Broussard and Wakeel Ishola Anthony Idewu, were presented with 2007-2008 Donald W. Clayton Engineering Awards at the LSU College of Engineering Hall of Distinction ceremony on April 17, 2008, which took place at the LSU Faculty Club. The Donald W. Clayton Engineering Awards are granted each year to outstanding undergraduate students who exhibit extraordinary character, scholastic achievement, and leadership in the College of Engineering.



Gabriel David Broussard was awarded a Donald W. Clayton Engineering Excellence Award (for undergraduate students). Gabriel is a TOPS scholar, graduated Magna Cum Laude from LSU in December of 2007 with a BS in Civil Engineering. He completed his degree with an overall GPA of 3.87, finishing first in a graduating class of 29 students. He was the 2004 recipient of the Josephine R. Losavio Scholarship, as well as the 2005-2006 recipient of the W.R. Aldrich Scholarship. Gabriel is a member of the National Society of Collegiate Scholars and the American Society of Civil Engineers. He is currently pursuing a Masters degree in Civil Engineering with a concentration in structures. Gabriel plans to enter the field as a professional engineer.



Wakeel Ishola Anthony Idewu was awarded a Clayton Graduate Assistantship graduated from University of Louisiana at Lafayette with a BS in Civil Engineering in 2004. In December of 2007, he went on to obtain an MS in Engineering Science with a concentration in Transportation. He expects to receive his PhD in Civil Engineering from LSU in December of 2008. In 2005, he received the Graduate Alliance for Education in Louisiana Award, as well as Minority Engineering Program Graduate Student of the Year. He holds the HBEC/ONR Future Faculty Fellowship and the Bridge to Doctoral Program Award. Wakeel is active in the Black Graduate and Professional Student Association and won first place at the NSBE Poster competition in 2007. From 2004-2005 he served as a civil engineering intern at the New Orleans International Airport. He has completed several projects as a researcher at Minority Engineering Program at LSU, honing his teaching skills to prepare him for an academic career. His doctoral research project seeks to increase safety and efficiency in the development of highway land reductions.



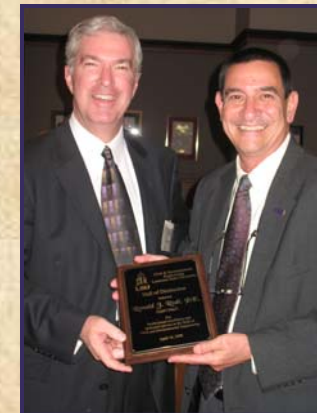
Dr. George Voyiadjis presenting plaque to Dr. J. Tinsley Oden



Mr. Recep Yilmaz & Dr. Mehmet Tumay with Spouses



Mr. Recep Yilmaz



Mr. Don Eisenberg and Mr. Ron Rodi



Dr. Elvin Dantin, Dr. J. Tinsley Oden & Dr. George Voyiadjis



CEE Faculty Members Dr. Heather Smith, Dr. William Moe and Dr. Clinton Willson with Spouses



Dr. Donald D. Adrian presenting Faculty Award to Dr. Guoping Zhang



Dr. George Voyiadjis presenting plaque to Senator John Donahue Jr.



Mrs. Ann Forte Trappey, Dr. & Mrs. Clinton Willson and Mr. Don Eisenberg



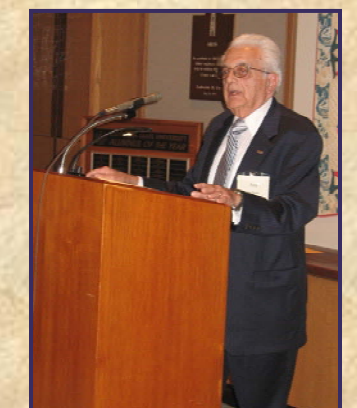
Dr. & Mrs. Kam Movassaghi and Dr. George Voyiadjis



Dr. Mehmet T. Tumay



Dr. & Mrs. George Voyiadjis



Mr. Ara Arman



New Inductees to the CEE Hall of Distinction

The Civil and Environmental Engineering Department hosted a banquet on April 10th at the LSU Alumni Center. Four new Hall of Distinction Inductees were introduced at the banquet. 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.

The 2006 inductees are Louisiana State Senator John "Jack" Donahue, Jr. of DonahueFavret Contractors, Inc. and Ronald "Ron" Rodi of CSRS. The 2007 inductees are J. Tinsley Oden of The University of Texas at Austin and Recep Yilmaz of Fugro. Each inductee was presented with a plaque.

For complete bios on each of the new inductees, along with bios of the previous inductees, please visit the CEE departmental website at www.cee.lsu.edu, click on the "People" tab at the top of the page and then click on the "Hall of Distinction" link on the left side of the page.

CEE Annual Faculty Achievement Awards

Also recognized at the banquet were the recipients of the 2008 CEE Faculty Achievement Awards, as presented by Dr. Donald D. Adrian, CEE Graduate Program Coordinator. Dr. Khalid A. Alshibli, Dr. Brian Wolshon and Dr. Guoping Zhang were recognized for their outstanding achievement during 2008.



Dr. Khalid A. Alshibli
Associate Professor
Geotechnical Engineering



Dr. Brian Wolshon
Associate Professor
Transportation Engineering



Dr. Guoping Zhang
Assistant Professor
Geotechnical Engineering

CEE Ranks 57th in 2008 US NEWS & World Report

We are pleased to announce that the LSU Department of Civil and Environmental Engineering ranked 57th with a 2.7 average assessment in the 2008 US News and World Report's listing of Civil Engineering programs. Last year, the department ranked 60th with an average assessment of 2.6. The department would like to thank all of those who contributed to this success.

Dr. Michele Barbato Receives Grants



Dr. Michele Barbato has received a grant of \$75,000 for his proposal entitled *Performance evaluation of buried pipe installation* from the Louisiana Department of Transportation and Development (LA DOTD) through the Louisiana Transportation Research Center (LTRC). The LA DOTD is in the process of revising the current specifications to obtain a more cost-efficient design and installation of buried pipes for highway infrastructure. The research project aims at determining the effects of geometric and mechanical parameters (e.g., pipe ring stiffness, natural soil surrounding the trench, bedding thickness, and fill cover height) characterizing the soil-structure interaction developed in a buried pipe installation.

Dr. George Voyiadjis Short Course and Invited Lectures



A short course was coordinated by Dr. George Voyiadjis in the International Center for Mechanical Sciences, Udine, Italy, held July 7-11. The course was on "Damage Mechanics and Micromechanics of Localized Fracture Phenomena in Inelastic Solids". It involved four professors in teaching this course: two from Poland, one from Italy and the coordinator Dr. Voyiadjis. There were seven doctoral fellows and sixteen Ph.D. students attending the short course.

He also gave the opening lecture in the second US-France symposium organized by the International Center for Applied Computational Mechanics May 28-30 in Recamador, France. The symposium was on "Materials under extreme loading: Application to penetration and impact."

Dr. Voyiadjis was invited to give a lecture in the Polish Academy of Sciences, in the Institute of Fundamental Research in Warsaw, Poland.

Professor Emeritus Mehmet T. Tumay



CEE Professor Emeritus Mehmet T. Tumay was invited to deliver the keynote lecture at the Korean Geotechnical Society's Annual Conference in Seoul, South Korea in March of 2008. He was also invited to give the same lecture at Korea University and later at the University of Hong Kong. Dr. Tumay also participated in the Third International Conference on Site Characterization (ISC'3) in April in Taipei, Taiwan, where he was invited to Chair the Keynote Lecture Session of Prof. Dr. Carlos Santamarina, and also presented a paper.

Dr. Louay Mohammad Guest Speaker



Dr. Louay Mohammad was invited to give a guest speaker presentation at several events this past semester. Dr. Mohammad gave a presentation on the "Development of Methodologies to Evaluate Tack Coat Quality and Interface Bond Strength Testing" at the 49th Louisiana Asphalt Pavement Association Convention held in Sandestin, Florida on June 4-8. He also presented at the 16th Annual International Center for Aggregate Research Symposium held in Austin, Texas on May 12 -14 titled "Laboratory Characterization of Asphalt-Treated Granular Bases." In February Dr. Mohammad participated in two annual meetings. The first, the 35th Annual Meeting of the Asphalt Emulsion manufacturer Association, took place in San Jose del Cabo, Mexico on February 19-23 where Dr. Mohammad presented a Research Update on NCHRP Project 9-40 on Optimization of Tack Coat for HMA Placement. The second meeting was the 9th Annual Meeting of the Association of Modified Asphalt Producers, held in Austin, Texas February 11-13, where he gave a presentation titled "Effect of Tack Coat Material type and Application Rate on the Bond Strength." Also, Dr. Mohammad was recently appointed as an Associate Editor, International Journal of Pavement Research and Technology.

Dr. Frank T-C Tsai Receives Award



The CEE Department would like to congratulate Dr. Frank T-C. Tsai, recipient of an LSU 2008 Tiger Athletic Foundation Undergraduate Teaching Award. The 2008 LSU Distinguished Faculty Awards were honored at a reception held on May 6, 2008 at the Lod Cook Alumni Center.

Announcing the University Transportation Center (UTC) on Evacuation and Transportation Resiliency

This federally designated center, made possible by the very active support of the Louisiana Department of Transportation and Development, is scheduled to receive \$4 million over the next four years from the United States Department of Transportation. Dr. Brian Wolshon will serve as the Center Director which will be co-administered between LSU and University of New Orleans (UNO) and will be housed in the College of Engineering and Department of Civil & Environmental Engineering and the UNO's School of Urban Planning and Regional Studies.

The mission of the LSU-UNO Center will be Evacuation and Transportation Resiliency. This theme has been selected to address a multitude of issues that impact transportation processes under emergency conditions such as evacuation and other types of major events as well as the need to develop and maintain the ability of transportation systems to economically, efficiently, and safely respond to the changing conditions and demands that may be placed upon them. Work in this area is anticipated to include the development of modeling and analysis techniques; innovative design and control strategies; and travel demand estimation and planning methods that can be used to predict and improve travel under periods of immediate and overwhelming demand. In addition to detailed analyses of emergency transportation processes, The Center will provide support for the broader

study of transportation resiliency. This will include work on the key components of redundant transportation systems, analysis of congestion in relation to resiliency, impact of climate change and peak oil, provision of transportation options, and transportation finance. Using the concept of resilience as an organizing theme for the Center provides a strong analytic frame for advancing management and policy tools necessary for dealing with future conditions that are increasingly unstable. The need to provide multiple options for both personal transport and commerce is underscored by recent experiences in Louisiana resulting from Hurricane Katrina where transportation systems were stretched to the breaking point. Addressing the multitude of issues that impact transportation processes under emergency conditions and other types of major events will be a central focus of the Center. The work anticipated to be conducted will seek to stretch over several different modes including transit, multimodal connectivity and maritime, non-motorized, pedestrian, and obviously automobile-based. The Center theme will provide a strong platform to take advantage of the wealth of knowledge and experience of researchers and practicing professionals in south Louisiana who are actively responding to changing transportation processes and conditions especially in relation to Hurricane Katrina recovery.

Evacuation Models and Dynamics Project



Dr. Brian Wolshon and Dr. Chester Wilmot, along with faculty from the E. J. Ourso College of Business, have been awarded \$833,316 over six years from the United States Department of Homeland Security as part of the Center for Natural Disasters, Coastal Infrastructure, and Emergency Management led by the University of North Carolina. The center is one of thirteen designated Homeland Security Centers of Excellence.

The goal of the "Evacuation Models and Dynamics" project is to enhance the capabilities of emerging evacuation modeling systems by increasing their level of detail and the robustness of transportation simulation. The researchers propose to use enhanced models to more effectively plan regional transportation infrastructure improvements for disaster scenarios, and to test, evaluate, and manage evacuations under a variety of potential conditions. This research will incorporate a multi-step approach to integrate geographic information systems, transportation policy, evacuation travel demand forecasting, and operational-level multimodal traffic modeling on a regional basis.

The project also will be enhanced by leveraging currently ongoing projects at the participating institutions, including the TRANSIMS regional multimodal evacuation model under development at LSU and the GIS mapping systems at Mississippi State University. The research will initially focus on the New Orleans region, then be applied to Houston area with a ultimate goal of generalizing it to other locations and types of hazards. The findings will also inform the temporal declaration of evacuation orders and the implementation of pro-active evacuation measures such as phased evacuations and contraflow. Finally, they will improve the integration of disaster management needs into the two, six, and 25 year transportation system planning processes.

