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- *Find out the latest information about the CEE Department*
- *Contact faculty and staff*
- *Get information about graduate and undergraduate programs*
- *Find out the most up-to-date information about student organizations*
- *and much more!*

Contributions to the newsletter are always welcome. If you have news that would be of interest to other CEEs or your classmates, please send it to us so it can be included in a future edition.

Tel: (225) 578-8442 Fax: (225) 578-4945

Please contact Dr. George Z. Voyiadjis for more details.

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Louisiana State University

Civil and Environmental Engineering

Volume 2 Spring Issue **March 2003**

Message from the Chairman

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

Chancellor Mark Emmert initiated a drive for LSU to achieve National Flagship Status by the year 2010 when our campus will reach its 150 year anniversary. The faculty of the Department of Civil and Environmental Engineering (CEE) wholeheartedly endorsed this objective and developed vision and goals for this initiative. The global vision for the CEE department is to continue to develop:

- To be internationally and nationally prominent and state relevant,
- To maintain excellence in undergraduate instruction,
- To continue to develop an international and nationally-recognized program in graduate instruction, and
- To continue to develop and expand research and scholarly activities.

In parallel with this vision, CEE is preparing for an ABET visit in Fall 2003. Part of the preparation involves seeking ways to improve undergraduate instruction to meet and exceed ABET'S and the profession's Body of Knowledge. Our ABET preparations point out that we will require more effort to make class material available in Internet formats, while we enhance our laboratory instruction and facilities and emphasize communication, interpersonal leadership and design skills. We will strive to create the best program in the region and to reach national and international recognition, for which we will need faculty commitment, commensurate resources in space, and classroom and teaching laboratory equipment.

In order to be in the top quartile of the nation's programs we need to also focus resources on our graduate program that is growing rapidly and becoming stronger. We need to market our successes and find the funds to recruit nationally competitive students. Another graduate program initiative is to respond to changing state-of-the-art and industry/government calls for a more flexible approach to graduate studies. The call for a flexible approach to graduate studies is likely to involve continuing education, distance learning and exploration of more flexible curricula that reach beyond the current research oriented programs. We must encompass the needs of graduates moving into broader application of their engineering training where management, construction, economic, business and communications skills are highly desirable. One graduate program priority area involves studying the professional master's degree.

The context for the strategic directions in CEE research is the overarching significance of the 'as built and anthropogenic' environment in sustaining our quality of life. The national asset in civil infrastructure is worth billions of dollars and is central to everything we do. The challenge for civil and environmental engineering is to sustain those activities which improve productivity while enhancing the quality of life while providing and maintaining an appropriate infrastructure with the least impact on the natural environment. We have to find better ways and means of using resources, materials, space and energy, which will require concerted and continuous effort.

In 2001, as an indicator of the significance of the ‘as built’ environment in American society, the ASCE issued a ‘report card’ on America’s infrastructure, and gave the nation a D+ grade. ASCE estimated the total infrastructure investment needs at $1.3 trillion over a five-year period.

In addition to infrastructure issues, a significant investment will be made over the next 10 years in the area of homeland security. Environmental engineers will play a key role in the development of water system security, detection and treatment of pathogens, and protection against air pollutants. The department is already in a position to compete for these resources given the background of a number of CEE faculty.

In research, there is a need to build ‘critical mass’ in a few areas to be fully competitive at the national level. We intend to be amongst the top graduate schools for a selected group of CEE disciplines. This means building a team approach to major projects both within LSU faculty and in cooperation with other Universities. Though national funding must be targeted, much of it should be on a basis of State relevant studies.

LSU CEE will seek the local foci and needs in these areas in order to build ‘critical mass’ for national competitiveness in the areas of:

Biological Waste and Water Treatment;
Coastal Protection and Restoration;
Extreme Event Engineering Response;
Structural, geotechnical, flood control, environmental impacts and transportation security
Hazardous Substance Management;
Risk Assessment, Passive and Active Remedial Processes
Infrastructure Damage Assessment and Renovation;
Advanced materials, life cycle design and maintenance, Tomography and micromechanics
Maintenance and Restoration of Aquatic Systems.

At the national level, homeland security, high tech initiatives and the aging infrastructure will continue to be major concerns. Additional research areas will also be developed as we strive to enhance our departmental environment in which new and relevant ideas in research can emerge.

Security concerns will play an increasing role in our current hurricane, flood control and extreme transportation events studies which also includes road safety research. An emerging area of study addresses institutional effectiveness in technology applications. High tech should include new ‘smart’ materials, modeling and visualization, new evaluation technologies for >traditional= materials and construction processes, new automated and AI traffic management processes and better planning processes based on advanced data collection techniques. High tech will address deterioration science and assessment technologies which will be applied to evaluate and repair damaged existing infrastructure. High tech will allow engineers to better understand the behavior of materials under static and dynamic loading conditions, such as those that occur with hurricane wind effects and explosions.

The ageing infrastructure gives opportunities for remote and non destructive monitoring and testing techniques, environmental impact studies, asset management techniques, quality control and assurance methods and, recycling technologies. For the department’s contribution to the national flagship agenda, we will strive to create the best program in the region and to reach national recognition, for which we will need commensurate resources in space and classrooms as well as teaching laboratory equipment.

Research Grants and Awards

C. S. Cai “Development of an Adaptive Damper for Cable Vibration Control.” National Research Council- NCHRP IDEA program, $76,239.

C. S. Cai and **George Voyiadjis**. “Determination of Interaction between Concrete Bridge Approach Slab and Embankment Settlement”, LaDOTD, $99,621.00.

The U.S. Army Corps of Engineers has recently added $25,000 to the budget of a research project studying the cumulative effects of flood induced sand boils on the land side of river levees. Sand boils are caused by seepage of flood waters under levees. There is concern that sand boils from a series of flood events may cause levees to weaken, thereby increasing their likelihood of failure. Investigators on the research project are Professors **Dean Adrian**, **Vijay Singh** and **John Pardue**. Graduate students who worked on the project include Senda Ozkan, Sherly Hartono and Curtis Sutherland.

An REU award has been granted for $10,000 from the National Science Foundation for the project entitled “Inclined Piezocone Penetration Aspects - Theoretical Interpretation and Experiment Verification.” The project is under the direction of **Mehmet T. Tumay** and **Murad Y. Abu-Farsakh**. This award brings the total award to $192,312.

ALUMNI

The Department of Civil and Environmental Engineering wants to know where life has taken you. Who are you working for and what is your title? Have you received any recognition for your work? Are you working on an especially challenging project?

Please complete the following information and attach any additional comments you may have. Space permitting, we would like to use photos of you, your family or your latest project.

Please e-mail your information with attached photos to ceseal@lsu.edu, fill out an online form at www.cee.lsu.edu/~ceenews, or mail your submission to: Civil and Environmental Engineering, LSU, 3418 CEBA Building, Baton Rouge, LA 70803-6405.

CEE ALUMNI INFORMATION

Name:_____ Degree:_____ Year:_____

Home Address:_____

Home Telephone:_____Email:_____

Position Title:_____

Firm:_____Business telephone:_____

Business Address:_____

Your News:_____

_____

_____

Alumni Corner

Chris White, a 2001 graduate, is a Project Manager at Wynn L. White Consulting Engineers, Inc. Over the past year, his firm has conducted Mold and Moisture Management training seminars with a national laboratory chain and with various law firms. Mr. White’s responsibilities have expanded from project design and management to include building investigations for mold and moisture, remediation design, and project monitoring. The firm’s clients include engineers, architects, hospitals, school systems, and law firms. Mr. White also manages his firm's asbestos and lead consulting and design services.

CIVIL AND ENVIRONMENTAL ENGINEERING DEPARTMENTAL CAMPAIGN

The Department of Civil and Environmental Engineering is continuing a fundraising campaign to enrich and enhance programs in the department. Your donation will enhance the Departmental Enhancement Fund supporting new initiatives so that we may continue to produce top-quality engineers.
Our goal is to build an endowment of $400,000 and an annual $50,000 supplement to support the purchase of new lab equipment, computers and software, support of students, and support of faculty activities at professional meetings and conferences.
Any amount will be greatly appreciated; however, donors giving $200 a year for five or more years or over $1000 initially will receive special recognition in our departmental newsletter and on the Departmental Enhancement Fund plaque displayed in the department. Company matching funds will also be acknowledged. Please consider the CEE department this year in your annual giving.

DONOR INFORMATION:
(please check)

⌐ $10,000 or more ⌐ $5,000 to $9,999 ⌐ $1,000 to $4,999

⌐ $500 or more ⌐ $200 to $499 ⌐ Less than $200

I pledge $_____per year for the next _____years to the CEE Departmental Enhancement Fund for a total of $_____.

Please make your checks payable to the "LSU Foundation" and note 'for CEE Enhancement Fund'.

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CITY:_____STATE:_____ZIP:_____

TELEPHONE:_____BUSINESS _____HOME

FAX NUMBER:_____ E-MAIL:_____

GRADUATION DATE:_____ DEGREE:_____

EMPLOYER:_____

Please mail donations to: Civil and Environmental Engineering
Louisiana State University
3418 CEBA Building
Baton Rouge, LA 70803-6405

You will be contacted by our development coordinator to confirm your pledge and support.

THANK YOU

LWRRI

Louisiana Water Resources Research Institute

Dr. John H. Pardue, Director

The Louisiana Water Resources Research Institute (LWRRI) was founded with the 1964 Water Resources Research Act and, as such, is the oldest Institute in the College of Engineering. LWRRI is one of 54 water institutes in the states and US territories comprising the National Institutes of Water Resources (NIWR). The state Institute's mission is to:

- Plans, facilitates and conducts research to aid in the resolution of State and regional water problems
- Promotes technology transfer and the dissemination and application of research results
- Provides for the training of scientists and engineers through their participation in research
- Provides for competitive grants to be awarded under the Water Resources Research Act

LWRRI has maintained a strong relationship with the Department of Civil & Environmental Engineering and CEE faculty have traditionally served as director. At present, Dr. John H. Pardue serves as Director while Dr. John Sansalone serves as Associate Director. Dr. Pardue and Dr. Sansalone are internationally recognized researchers in the area of water treatment. Dr. Pardue's expertise lies in the area of fate and transport of contaminants in wetland environments and the design of treatment wetlands. Dr. Sansalone's expertise is in the treatment of stormwater constituents.

Using the funding from the United States Geological Survey (USGS), LWRRI has funded research on water issues related to the state. Focus areas are selected in conjunction with a state-wide advisory board and proposals solicited from Universities around the state. In 2003, the LWRRI solicited proposals on two focus areas.

1). The primary focus area is the characterization of particulates for heavy metals in aquatic systems. A number of Louisiana aquatic systems are impacted by heavy metals originating in urban runoff, stormwater discharges or atmospheric deposition. New techniques, including X-ray-fluorescence and absorption spectroscopy are shedding new light on the speciation of metals on particulates. It is expected that these new analytical techniques will lead to a better understanding of the sources of particulate-bound heavy metals entering aquatic systems, leading to better management practices to protect our waterways. The synchrotron housed within the Center for Advanced Microstructures and Devices at Louisiana State University is a valuable tool for generating high-energy X-rays necessary for these spectroscopy tools. Establishing the full capabilities of the CAMD synchrotron is the objective of this work. Funding was provided to Amitava Roy at CAMD and Dr. Clint Willson at the Department of Civil & Environmental Engineering at LSU. These investigators will work with Dr. Pardue and Dr. Sansalone on extending synchrotron radiation tomography and spectroscopy to metal contamination issues.

2). The second focus area is to improve total maximum daily load (TMDL) calculations in Louisiana water bodies. Deterministic simulation models utilized for TMDL calculations commonly utilize assumptions about the aquatic system including constant flow velocities, constant rates of sediment oxygen demand and other

Continued on Page 4

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lumped parameters. This introduces a significant amount of uncertainty into the predictions of safe loads into these water bodies. Louisiana low relief ensures that may of the rivers and bayous are subject to backwater flooding events and other hydrologic events unique to the region that are not considered in the simulation models. This introduces additional uncertainty in the model output. Krishna Paudel from the Agricultural Economics department in the College of Agriculture will investigate the economic impacts of TMDLs on the agriculture

LWRRI will continue to develop new focus areas in response to needs at the state and national level. In addition to the base funding from USGS, the director and associate director of LWRRI have attracted a wide range of research funding from external sources. The Institute continues a tradition of research contributions to water issues.

Practitioners Enhance the Undergraduate Experience

The Department is fortunate to have practitioners who are willing to give of their time and expertise to bring the reality of engineering and construction practice into the classroom. In the Introduction to Civil Engineering class, largely sophomores, a series of practitioners spoke about career opportunities in the fields of consulting, construction, and public works engineering. Ms. Senda Ozkan, P.E., Gulf Engineering Consultants, described the expectations and opportunities in the consulting field. She stressed the important elements of a work plan; the need for doing high quality work; the requirements for professional registration; and the development of good relationships with clients. Mr. Mike Moran, Vice President, Deep Foundations Division, Cajun Constructors, discussed possible career tracks and types of work involved in the field of construction. He also introduced the concept of constructability illustrated by several interesting case histories. The final speaker was Mr. Kirk Zeringue, E.I., Pavement and Geotechnical Design Section, Louisiana Department of Transportation and Development. He encouraged students to get involved student activities, attend conferences and consider participating in a co-op experience.

As another element of the Introduction to Civil Engineering class, students are being exposed to selected societal issues in which civil engineers have a stake and a role to play. Mr. Jerry Klier, P.E., Department of Public Works, City of Baton Rouge and Parish of East Baton Rouge, is scheduled to discuss issues dealing with the status and needs of the civil infrastructure. Loss of wetlands issues will be addressed by Mr. Chris Knotts, P.E., Coastal Restoration Division, Louisiana Department of Natural Resources. Mr. Charles Demas, Water Resources Division, United States Geological Survey, will discuss water issues from a state, national, and international perspective.

Mr. Mike Aderman, P.E., Ragland, Aderman and Associates, is serving as the “client” for one of the capstone design courses in civil engineering. He allowed one of his firm’s projects to serve as the basis for the capstone project. Mike also imparts a great deal of professional and technical advice and knowledge to the students as part of his role in the course. His service to the Department in this capacity stretches over a period of at least 20 years. Over the years, Mike and Dr. Dean McKee, P.E., McKee and Deville Consulting Engineers, have annually alternated their service to the project course. Early in the course, Mr. Shannon Duvic, B&G Crane Service, shared his experience as a project manager for one of the student design teams several years ago. He gave the students a number of recommendations to enhance their experience in the class. For the second time in as many years, Mr. Ken Jacob, CEO, Cajun Constructors, presented an effective and enlightening discussion on the topic of “constructability” to the students in the capstone design course. He illustrated his talk with numerous examples of good and poor design practices that have an impact on constructability, the cost of the project and the quality of the project. Ken also agreed to do double duty and serve on a professional evaluation panel to guide the students in their work as well as judge the quality of their designs. Joining Ken as members

Have You Heard ?

Dr. Dean Adrian was the recipient of the Louisiana Engineering Foundation's Professionalism Award for an LSU faculty member. The award was presented January 23rd at the Louisiana Engineering Society meeting in Lafayette.

Dr. Steve C. S. Cai served on the International Scientific Committee at the Third International Conference on Advances in Steel Structures from December 9-11, 2002 in Hong Kong, China.

Dr. Steve C. S. Cai served on the Academic Committee at the Seventh International Symposium on Structural Engineering for Young Experts from August 28-31, 2002 in Tianjin, China.

Dr. Marc Levitan, was recently elected to serve as President of the American Association for Wind Engineering. He will assume the role of President-Elect in April 2003 for two years, followed by a two-year term as President. The mission of AAWE is to support and enhance research, education, and technology transfer activities in all aspects of wind engineering, from wind resistance of buildings to wind erosion to wind energy production.

Dr. John Metcalf has been appointed to the Editorial Board for the *International Journal of Pavement Engineering*.

Dr. William M. Moe passed the Louisiana Professional Engineer's Exam and is now a Registered Professional Engineer.

Dr. Louay Mohammad has been selected to receive the Association of Asphalt Paving Technologist 2002 Award for Recognition, an award given to individuals who have served the association by offering outstanding journal papers and discussions and by serving on committees. He will be presented with this Award during the Association Annual meeting banquet on March 11, 2003 in Lexington, Kentucky.

Mr. Cliff Mugnier was awarded Lifetime Honorary Membership by the Louisiana Society of Professional Surveyors last year. He is only the fourth in the society to be awarded this honor.

Ms. Senda Ozkan, Graduate Student and Ph.D. candidate, passed the Professional Engineer's Exam and is now a Registered Professional Engineer.

Dr. Roger K. Seals was recognized as a Life Member of the American Society of Civil Engineers at a recent meeting of the Louisiana Section of ASCE.

Dr. Vijay Singh was invited to give a keynote paper on "Integrated Watershed Management for Flood Mitigation" at the International Conference on Water-related Disasters held December 5-7, 2002, in Kolkata, India. He also gave an inaugural address at the conference. He presented a paper "Impacts of Hurricanes in Louisiana" co-authored with Drs. Marc Levitan and Vibhas Aravamuthan.

Dr. Vijay Singh was invited to give a keynote paper "Integrated Watershed Management Education for the 21st century" at the International Conference on Watershed Management held December 18-21, 2002, in Hyderabad. He gave a Diamond Jubilee Lecture on "Groundwater Modeling: Concepts and Perspective" at the National Geophysical Research Institute in Hyderabad and presented two lectures on watershed management and groundwater modeling at Jawarlal Nehru Technological University and MCR HRD Institute-Mahadevan International Centre in Hyderabad.

Dr. Vijay Singh has been elected to the Russian Academy of Water Management Sciences, Russia; as well as to the Georgian Academy of Sciences, Republic of Georgia.

ASCE News

American Society of Civil Engineers

At a recent banquet, the Baton Rouge Branch ASCE Annual Student Scholarship was presented to Kenneth J. Krefft, Jr. Kenneth is a Civil Engineering senior at LSU. He has served as an officer in the ASCE Student Chapter and is a member of Tau Beta Pi and Chi Epsilon. In addition to his many academic and extracurricular activities, Kenneth works part time in the Traffic Engineering Division of the East Baton Rouge Department of Public Works. The scholarship was presented to Kenneth by J. Keith Shackelford, President of the Baton Rouge Branch of the American Society of Civil Engineers.

Two CEE Professors Receive Honors

Congratulations to **Dr. David Constant**, who was recently granted the Humphreys T. Turner Professorship.

Congratulations to **Dr. Roy Dokka**, who was recently named the Fruehan Endowed Professor of Engineering.

AMERICAN COUNCIL OF ENGINEERING
COMPANIES OF LOUISIANA

ACEC/L 2002-2003 BOARD OF GOVERNORS

The American Council of Engineering Companies of Louisiana (ACEC/L) recently presented its 2002-2003 Board of Governors. Among its members are several LSU Civil Engineering alumni. We would like to recognize these individuals:

Ann Forte Trappey, P.E., has been elected **President** of ACEC/L. She is a member of our Departmental Advisory Board and is the first woman to be featured on the cover of *Louisiana Engineer & Surveyor Journal.* Her firm is Forte and Tablada, Inc. of Baton Rouge, LA.

Wilfred B. Barry, P.E., P.L.S., is the 2002-2003 **President-Elect**. His company is SJB Group, Inc. of Baton Rouge, LA.

Suzanne McCain, P.E., has been chosen as **President of the Baton Rouge Chapte**r of ACEC/L. Her firm is Evans-Graves Engineering, Inc. of Baton Rouge, LA.

Congratulations to all members of the 2002-2003 Board of Governors!

of the panel are Mr. Greg Speda, P.E., Sigma Consulting Group, Mr. Rob Cangelosi, P.E., SJB Group, and Dr. Gordon Boutwell, P.E., Soil Testing Engineers. It is fair to say that the involvement of these practitioners in the course has not only enhanced the quality of the course but raised the level of performance of the students.

Mr. Clovis Morrison, P.E., Morrison and Associates, is currently teaching a structural engineering project course on the Design of Marine Structures for Inland Waterways.

A number of practitioners, too numerous to mention herein, serve on the Departmental Advisory Board, the Civil Engineering Program Advisory Committee (CPAC) and the Environmental Engineering Program Advisory Committee (EPAC).

The Department is gratified by the willingness of these practitioners to give of their time and talent to enhance out program and improve the design experience afforded to our students. If you are interested in participating in this or other practitioner involvement programs, we invite you to complete the Practitioner Involvement Registry Form available at www.cee.lsu.edu/~ceeupo. Thanks!

Alumni and Practitioner Involvement Registries Initiated

Two web based registries have been developed to provide a better link between the Department and its alumni and to solicit practitioner involvement in the undergraduate program.

Specifically, the Alumni Registry was developed with the following objectives in mind.

- Collect data that will assist the Department in its Continual Improvement Process as required for the reaccreditation of its undergraduate programs in Civil Engineering and Environmental Engineering.
- Provide a means to update the mailing list for our quarterly newsletter.
- Provide a means that will allow former classmates an opportunity to have a “virtual reunion”.

The Alumni Registry can be accessed at www.cee.lsu.edu/~ceeupo. Please help us by completing the form on the webpage. It will take you no more than 10 minutes to complete and submit the form.

The Practitioner Involvement Registry is a means to volunteer your services to enhance our undergraduate programs in Civil Engineering and Environmental engineering. Our main goal is to improve the understanding and exposure of our undergraduate students to professional practice issues. We hope to achieve this goal by increased practitioner involvement in our programs. Irrespective of where you received your degree, we solicit your involvement in this program. There are several ways you might assist the Department. For example:

- As a guest lecturer in a class or student chapter meeting
- As a field trip sponsor
- As a design project panel evaluator
- As a professional mentor

Your contributions will greatly enhance our undergraduate programs and make invaluable contributions to the education of our students. The Professional Involvement Registry can be accessed at www.cee.lsu.edu/~ceeupo. Please help us by completing the form on the webpage. It will take you no more than 10 minutes to complete and submit the form.

If you have any questions about either of the registries, contact Roger Seals at ceseal@lsu.edu.

Center for Geoinformatics

Dr. Roy Dokka, Director

A comprehensive understanding of natural systems and related environmental problems requires an integrative scientific-engineering approach. Because most problems do not lie within a single scientific or engineering domain, deep understanding can only be obtained through the integration of insights from all relevant fields. For example, earth and environmental systems research has historically been geared to understanding how single processes work and how these processes work together as part of larger systems that ultimately lead to the formation of mountain systems or the loss of Louisiana's coast. To understand how the pieces combine to form the whole, natural and environmental systems research requires substantial integration between scientific and engineering disciplines in terms of concepts, knowledge, skills, and problem solving approaches. Until recently, the requisite tools did not exist or were too crude to be of value. Natural and environmental system research is especially well-suited to take advantage of powerful new technologies such as Geographical/Land Information Systems (GIS/LIS), the Global Positioning System (GPS), scientific visualization, information networks, and wireless applications to help actualize true integration of people, ideas, and data. This amalgam of science and geospatial technologies is known worldwide as **GeoInformatics**. To illustrate its emerging importance, Geoinformatics is the subject of major new initiatives at the National Science Foundation and at counterpart agencies in Europe and Canada.

The key element that differentiates Geoinformatics from other areas of information technology is the requirement that all data are geocoded, i.e., have an address in 3-D space. Because all things have a position on, in, or above the Earth, the location of an entity thus provides us with a way to inter-relate a wide range of data types and discover possible relationships. For example, researchers in the LSU Hazardous Substance Research Center compare the spatial distribution of groundwater contaminants in an aquifer with respect to reported cases of illness in households that use water wells. In another example, the CoE Natural Systems Engineering Laboratory predicts flooding and storm surge due to hurricanes, and other storms by melding geocoded topographic data, real-time weather data, knowledge of physical geological processes, land use information, and soil characteristics with hydrodynamics. Knowing how high floodwaters will rise provides emergency officials with the information to coordinate evacuation.

The State, however, has a major problem in regards to positioning. The National Geodetic Survey (NGS), the federal agency responsible for positioning in the USA, has determined that the elevation reference system in the State is **obsolete and inadequate** due to disruption by natural subsidence. This subsidence is also the underlying culprit behind Louisiana's greatest environmental problem, the continuing loss of our coast. In addition to being a world-class scientific topic, coastal land loss robs the State of 25-35 square miles per year due to both natural and man-made causes. Subsidence has also had the serious effect of disturbing the system of reference markers we use for surveying the elevations of levees, evacuation routes, coastal restoration efforts, etc. To address these problems, the Center for GeoInformatics at Louisiana State University, in cooperation with NGS, has created the Louisiana Spatial Reference Center (LSRC). LSRC is building a state-wide network of high precision Global Positioning System (GPS) receivers, termed GULFNET, that will re-establish the official federal reference system within the state. This state-wide **positional infrastructure** will be the backbone for all legal surveying in Louisiana, as well as supporting all GIS development, detailed topographic mapping, precision farming, navigation, and all other geospatial applications. The system will also be focused on pinpointing the location of subsidence and measuring exactly how fast the coast is sinking. This will provide the needed information to support future coastal restoration efforts.

Geoinformatics activities on campus hold tremendous promise to produce intellectual property capable of commercialization. Just GIS and GPS alone are projected to account for >$20B of revenue worldwide by 2006. It is our goal to create a vertically integrated Geoinformatics enterprise, beginning with basic research and ending with commercialization of intellectual property in the form of patents, licenses, and copyrighted materials. Through partnership with the Louisiana Business and Technology Center of the College of Business, LSU can become the leading university force in the southeastern U.S. in geospatial technologies and in the commercialization of intellectual property.

Call to Participate in Alumni and Employer Surveys

As an important part of our Continual Improvement Process, the Department is conducting a web-based survey of alumni and employers. The objectives of the surveys are to assess and evaluate our undergraduate programs and the performance of our graduates; gather information that can be use to document the professional development of our graduates; and identify the need to strengthen our curricula. This information is a vital part of our preparation for the Accreditation Board for Engineering and Technology visit scheduled for Fall 2003.

As a possible alumnus of either our civil engineering or environmental engineering, you are asked to participate in this important activity. Completion of the survey will probably take no more than 15 minutes of your time and be of invaluable service to the Department. To complete the survey, access the following site, complete the survey form, and click on the submit button. You will note the survey form consists of common Background and Evaluation of Undergraduate Programs sections, followed by separate sections for Civil Engineering and Environmental Engineering. If you are a civil engineering alumnus, complete the civil engineering section only. If you are an environmental engineering alumnus, complete that section only.

http://www.cae.lsu.edu/ss//wsb.dll/rseals/cee_alumni_survey.htm

Your information will be treated as confidential.

If you now employ LSU civil engineering or environmental engineering graduates that graduated within the past six years, we ask that you help us by completing the Employer Survey Form available at:

http://www.cae.lsu.edu/ss//wsb.dll/rseals/cee_employer_survey.htm

Again, your information will be treated as confidential.

If you have any questions about this matter or have any difficulty in completing the survey, please contact Karyn Klein at kklein6@lsu.edu. Your timely response to this call will be greatly appreciated.

CEE Student Recognized by College and ASCE

Lisa Rodriguez, a Civil Engineering student, has been chosen as the first recipient of the 2003 College of Engineering Undergraduate Good Ambassador Award. The award recognizes scholarship, service, and leadership skill in the College of Engineering. Lisa was also recognized as a Distinguished Civil Engineering Senior Student by the Louisiana Section of the American Society of Civil Engineers. We would like to congratulate Lisa for these honors.