This was a banner year for the civil engineering department, and I am very pleased to share some of the highlights. New research contracts in 2006 were more than half a million dollars, a historical high for the department. The current undergraduate student enrollment has also exceeded 130 students, another historical high. Moreover, a number of alumni, faculty and students received very prestigious awards that you can read about in this newsletter.

The number of students taking and passing the Fundamentals of Engineering (FE) exam was also at an all-time high. Also, the department took some key initiatives to get us get ready for the next ABET visit in 2009. But, in my view, the best news is that our students continue to secure rewarding jobs. More than 80 percent of the graduating students are getting job offers well before the graduation date. There are several reasons for this, but one important reason has to be the second-to-none industry support this department enjoys and the outstanding internship experiences our students get as a result.

I also want to take the opportunity to share the news of a new endowment, the Civil Alumni Recruitment Endowment (C.A.R.E.), which was established this year at the initiative of alumni in the Civil Engineering Advisory Committee (CEAC). This endowment has the full support of civil engineering faculty members who are also contributing to C.A.R.E. The purpose of this endowment is to help recruit outstanding civil engineering students by providing scholarships to deserving students. You can find out more about the endowment at http://coe.fit.edu/civil/care_endow.html. Endowments are the life blood of private universities, and your gifts, large or small, are deeply appreciated.

Please continue to share your news and pictures with us. I hope to meet (or at least hear from) many of you in 2007. Happy New Year!

Alumni Receive Awards: Timothy W. Ling ’89 became the second civil engineering alumnus to receive the very prestigious Outstanding Service Award, which is conferred to an alumnus who has provided the most distinguished volunteer service to Florida Tech. Tim, who currently chairs the Civil Engineering Advisory Committee (CEAC), chaired the CEAC’s scholarship committee from 2001 to 2005. He was instrumental in creating the CEAC sponsored Freshman Research Award (CEFRA) in 2003. Herbert M. Raybourn ’89 received this award in 2003 (http://coe.fit.edu/civil/herb_award.html). Don Woodruff ’86 received the prestigious Outstanding Achievement Award in 2005. This award is conferred to an alumnus who has made significant professional contributions in his/her chosen field. Don is currently the president of Woodruff Construction, LLC.
located in Fort Dodge, Iowa. He is also the secretary cum treasurer of three other companies located in Fort Dodge: the Fort Dodge Land Company LLC, Gemini Land Company and Twin Enterprises. Woodruff was also very influential in creating Florida Tech’s Construction Industry Advisory Board (CIAB) and in creating the CIAB endowment which currently has a balance of more than $150,000. **Fariborz Zanganeh ’86**, who works for the St. Johns River Water Management District, received the 2006 Florida Section/ASCE annual “Government Engineer of the Year” award. During the award ceremony, Zanganeh’s career was summarized as one of “respect, caring, admiration, diligence, thoroughness, educating, pleasant and accommodating.” A project titled “Big Creeks Park Wetland Enhancement Project,” designed by **Ganesh Gopalakrishnan ’95** for the city of Roswell, Ga., received a State Award for Engineering Excellence.

**Florida Tech Fraternity Continues to Increase:** Civil engineering alumni continue to contribute in the growth of the Florida Tech family! Some of the new members are **Rose Elizabeth Bamber** (mother Tara Van Orden ’03), **Katie** (mother Jennifer Benaman ’94), **Monica Michelle Dikova** (mom Desi ’05), **Thulsy Gopalakrishnan** (dad Ganesh ’96), **Hunter Hall** (dad Matthew ’97), **Halia Rose Hoffman** (dad Scott ’97), **Ava Jade Knatz** (mom Carrie Green ’98, dad Ken ’98), **Jade and Jancise Mathurin** (dad Wilbur ’99; god parents Shannon Medeiros ’02 and Steve Medeiros ’99), **Tomas Alberto Montemayor Jr.** (dad Tomas ’95), **Adah Terrel** (dad Jake ’99), **Victoria Raybourn** (dad Herb ’89), **Ffion Wall** (mom Oksana Fung ’95 and dad Jeremy ’93), and **“Jack” John Joseph Yurick** (dad John ’96).

**Other News:** We received a very pleasant surprise when **Kristinn Gudmundsson ’88** visited Florida Tech this summer. Kristinn and his family live in Iceland, and they were vacationing at Disney World and surrounding areas. **Steve Medeiros ’99** completed the Idaho Ironman Triathlon in 16 hours, 40 minutes and 25 seconds. **Dr. Jose Andrade ’01** has joined the department of civil and environmental engineering at Northwestern after completing his doctorate at Stanford University.
**Faculty and Student Awards**

Dr. Howell H. Heck received the 2005–06 Florida Tech Andrew W. Revay Award for Excellence in Service. Among other reasons, Dr. Heck received this award for the work he does as the outreach coordinator for the civil engineering department and also for his work with Habitat for Humanity. Dr. Edward H. Kalajian received the College of Engineering’s 2006 Walter M. Nunn Jr. Excellence in Teaching award. This well-deserved honor recognized Dr. Kalajian’s more than 30 years of teaching prowess.

Dr. Edward Kalajian receiving the award from Dean Waite.

CEFRA awards were given to Kelsey McGinnis, Nicholas Leon, Michael DePaolo, Ryan Krazcik and Timothy Johnson. These awards ranged from $250 to $1,000 and were made possible mainly due to the past generous contributions from civil engineering alumni.

Jenna Landis '06 (now Jenna Cencer) received a $7,000 scholarship from Florida Rock Industries for a second consecutive year. Jenna, who was a four-year intern with PBS&J in their Melbourne office, also received Florida Tech’s Co-op/Intern Student Employee of the Year Award given to Florida Tech’s most outstanding co-op/intern. She also received the award for the Four Year College Experiential Student of the Year for the state of Florida from the Florida Career Professionals Association.

Jenna Landis, fourth from left, with President Catanese and her PBS&J colleagues during the Employee of the Year Award Presentations. Also pictured are Craig Kupec '05, second from left, and John Wilt '92 ocean engineering, fifth from left.

The department continues to provide awards and scholarships to deserving students through the M.H. Williams Construction, Eric Primavera Memorial, ASCE Student Chapter Endowment (http://civil.fit.edu/endowment.html) and the CEFRA (Civil Engineering Freshmen Research Awards) (http://civil.fit.edu/CEFRA.htm). The endowment was created in 2000 from contributions received by Mr. Williams, civil engineering alumni (many of you have contributed to this), civil engineering faculty and matching monies from the Olin Foundation. The current endowment amount is $130,872. The CEFRA was also started from monies received from civil engineering alumni, and the current balance is $2,000. The 2006 ASCE scholarship recipients were Joseph Morrissey, Timothy Johnson, Sebastien Doucet, Carlos Frade and George Norton. A special Hurricane Katrina Survivor Award was also presented to Toni Francis.

Nick Hansen earned a $1,000 academic scholarship given by Chi Epsilon in cooperation with the National Dean’s List. Nick carries a perfect 4.0 grade point average and is a past-president of Chi Epsilon.

**Industry Partnerships**

Industry partnerships go a long way in building a successful department. The WELBRO Building Corporation of Maitland, Fla., one of the active CIAB members, has initiated a $1,500 scholarship for Florida Tech students. The 2005 internship was awarded to Rachel Gerena, and the 2006 recipient was Lennon Shade. Both students had very satisfying experiences with WELBRO. Thanks to this and other industry partnerships, more than 80 percent of the graduating classes in the past seven years have had at least one semester’s worth of internship experience prior to graduation.

Our industry partnerships also allow us to introduce outstanding guest speakers to our students. Some of the industry professionals who lectured in civil engineering courses in the past academic year were:

- Philip Jarvis, Brent Christensen and Kris Conte from Burgoon-Berger Builders
- Craig Gadberry and Jessica Torres from CDM Engineers
- Mike Williams, Kyle Greenwood and Tommy Mikels from MHWilliams Construction
- Harry Johnson from BRPH Engineers
- Ed Kinberg from Kinberg & Bickford PA
- Steve Medeiros '99 from Professional Engineering Consultants, Inc.
- Tomas Montemayor '95 from P J Ford Consultants
- Gilberto Ramirez '00 from Brevard County Roads and Bridges
- Herb Raybourn '89 from Reedy Creek Improvement District
- Pam Shoemaker from Brevard County Solid Waste Department
- Fariborz Zanganeh '86 from the St. Johns River Water Management District
**Dr. Jean-Paul Pinelli** received a $300,000 grant from the National Science Foundation to work on a wireless sensor network for monitoring wind impacts. Dr. Pinelli is the director of the Florida Tech Wind and Hurricane Impact Research Laboratory (WHIRL). The network will measure pressures on roofs of buildings and can be valuable for measuring and characterizing hurricane wind loads on structures. Impacts of hurricanes on structures will be directly monitored at landfall through an intensive field deployment program. Dr. Pinelli and his research team received a second $262,000 grant from the Florida Department of Financial Affairs Office of Insurance Regulation to develop an engineering model to predict hurricane insurance losses for commercial buildings, such as condominiums, office buildings and hotels. As part of the research, the team is also examining reductions in risk through the use of retrofits and new construction methods. This grant is in collaboration with Florida International University in Miami, which manages the project, the University of Florida in Gainesville, the Hurricane Research Division of NOAA and Florida State University. The consortium’s research efforts resulted in the Florida Public Hurricane Loss Projection Model, which is used by the Office of Insurance Regulation to define and regulate insurance premiums.

**Dr. Paul Cosentino and Dr. Edward Kalajian** continue their research on the $261,000 recycled asphalt pavement (RAP) grant they received from the Florida Department of Transportation (FDOT). The research objectives are to assess the statewide variability of RAP and to evaluate and develop specifications on the long-term behavior of RAP and RAP-soil mixtures. RAP is the material milled during rehabilitation of old or distressed asphalt pavements. While some RAP may be recycled in asphalt pavement, much of the RAP is stockpiled. The long-term goal of this study is to maximize the reuse of RAP and to provide environmental and economic benefits by freeing up landfill space and saving material disposal costs.

**Dr. Howell Heck** received a $99,200 grant from Brevard County Solid Waste Management, issued through the Florida Department of Environmental Protection (FDEP) Innovative Recycling/Waste Reduction Grants Program. Dr. Heck’s research will help improve the environment and support Habitat for Humanity’s efforts to generate income to fund low-cost housing projects by finding ways to reduce the amount of construction and demolition waste put into landfills. Dr. Heck’s research team will collaborate to improve the building material reuse center, the ReStore, operated by Habitat for Humanity in Melbourne. The team also plans to develop better ways to collect, store and transport the construction and demolition waste.

**Professor Ralph Locurcio** continues to play a positive role in the lives of our students. Several students have found rewarding jobs thanks to his contacts in the industry. Professor Locurcio has established the framework of a new program in construction. This program will be housed in the College of Engineering and will probably start accepting students in fall 2007.

**Dr. Ashok Pandit** received a seed grant from the Florida Solar Energy Center to study the thermal impacts of land development. The long-term goal of this study is to develop multidimensional models that can be used to predict the effects of planned urban and suburban land development on surrounding air temperatures both at local and regional scales. This is a multidisciplinary project involving faculty from mechanical and aerospace engineering.

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*Figure 1: Thermal heat image of an aerated pond and surrounding area located on the Florida Tech campus.*
**ASCE:** The ASCE student chapter fielded a Steel Bridge team for the first time in 2006, and the students are working hard to get ready for the forthcoming regional competitions in Knoxville, Tenn., in March 2007. The 2006 Concrete Canoe team finished second in the American Society of Civil Engineers (ASCE) Southeast Regional Competition’s concrete canoe event among 23 universities. Twenty seven Florida Tech students participated in these events and brought home six awards. More information can be found at http://civil.fit.edu/newasce.html.

**Chi Epsilon:** The Florida Tech Chi Epsilon fraternity continues to grow. In November 2005, seven members were initiated, and 12 members were initiated in November 2006. Chi Epsilon continues to provide great service to the Florida Tech student body by arranging the Fundamentals of Engineering (FE) review course in both the fall and spring semesters.

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**Outreach Programs**

The outreach program continues to grow under the leadership of Dr. Heck. The purpose of this program is to recruit outstanding students. Two very interesting features of this program are:

1. **Camp Dream Builders:** There are two week-long summer camps, one for 7th to 9th graders, and the other for high school students. Visit http://civil.fit.edu/sumercamp/index.html for more information about the camps. More than 50 students attended Camp Dream Builders in 2006. The camp got a boost in July with a $1,500 check from the Florida East Coast Chapter of Associated Builders and Contractors Inc. (ABC), which is also a CIAB member.

2. **Science Fair Awards:** The department of civil engineering recognized and rewarded 16 middle and high school students in the three local science and engineering fairs and encouraged all students to consider the field of civil engineering as a career.
**FE Exam Results:** Eighty-seven percent of the 2005–’06 graduating seniors took the FE exam and of them 86 percent passed in their first attempt. These numbers were well above the national average.

**Department Picnics:** The two department picnics, Meet the Freshmen/Alumni picnic in the fall semester and Senior Send Off in the spring semester, continue to provide a great opportunity for students and faculty to socialize outside the classroom. Several alumni—Bob Butterfield ’86, Bora Erbilen ’89, Sinan Buyukaksakal ’94, Bianca Lloyd ’98, Bruce Doig ’98, Anna Landman ’02, Gil Ramirez ’02, Tara Van Orden ’03, Arnoldo Artiles ’04 and Richard Pruss ’06—showed up for the fall 2006 picnic. The highlight of the picnic was the planned “dumping” of Dr. Cosentino in the water by students. Students rammed into Dr. Cosentino’s boat and forced him to take an unplanned swim.