

USF Engineering Students Excel in National Student Engineering Competition



Team #1. Marcia Alvarado, Gouzel Iplaeva, Muntaha Abu-Hijleh, Rene Jacir, Margareth Dugarte



Team #2. Jonathan Collins, Edward Francis, Geoffrey Chambers, Purvik Patel, Evan Birk and David Furry (Inset)



Team #3. Julio Aguilar, Vladimir Simonokski, Ashley Quaid, Hida Bagheri, Lori Elkins



Dr. Rafael Perez, Mr. John Robertson, Dr. Rajan Sen, Dr. William Carpenter.

(January 5, 2009)

Three teams from USF excelled in a national competition to design the best prestressed concrete beam. Out of 54 competing teams, USF was ranked first in the innovative design category and third overall. In addition, the teams finished first and second in the regional competition. They were awarded prizes ranging from \$750 to \$1500.

The competition known as the Big Beam contest is hosted by the Precast Prestressed Concrete Institute (PCI) and sponsored by SIKA Corporation. It has been held every year since 2001 but this was the first time USF participated in the contest. Prestressed concrete structures are very economical and are widely used in Florida.

The results of this year's contest were announced at the PCI Convention in October 2008. The winning teams were:

First place for innovative design in the national championship and award of \$1000 Vladimir Simonovski, Lori Elkins, Julio Aguilar, Hida Bagheri and Ashley Quaid. (Team # 3)

Third place in the national championship and first place in the Zone 6 competition and award of \$1500 Marcia Alvarado, Muntaha Abu-Hijleh, Margareth Dugarte, Gouzel Ipaeva and Rene Jacir (Team # 1)

Second place in the Zone 6 competition and award of \$750 Evan Birk, Geoffrey Chambers, Jonathan Collins, Edward Francis, David Furry and Purvik Patel (Team # 2)

The Florida Prestressed Concrete Association (FPCA) provided additional prize money to the winning teams and the Department of Civil and Environmental Engineering. These were presented by Mr. John Robertson, Board President, FPCA. An unrestricted \$2500 gift was made to the Civil Engineering Department and awards of \$1000 each made to the teams finishing first in innovative design and first in the state. A \$500 award was made to the team finishing second in the state.

The students designed 18 ft long prestressed beams to competition rules as part of the graduate prestressed concrete course under the supervision of Prof. Rajan Sen with advice from industry consultant Maher K. Tadros, Ph.D, P.E. of PBS&J, Tampa. The teams worked with Standard Concrete Products, Tampa to fabricate the beams that were tested to failure at USF's Structural Engineering Laboratory.

The University of South Florida is one of the nation's top 63 public research universities and one of only 25 public research universities nationwide with very high research activity that is designated as community engaged by the Carnegie Foundation for the Advancement of Teaching. USF was awarded \$380.4 million in research contracts and grants in FY 2008/2009. The university offers 232 degree programs at the undergraduate, graduate, specialist and doctoral levels, including the doctor of medicine. The USF System has a \$1.8 billion annual budget, an annual economic impact of \$3.2 billion, and serves more than 47,000 students on institutions/campuses in Tampa, St. Petersburg, Sarasota-Manatee and Lakeland. USF is a member of the Big East Athletic Conference.