Careful attention to the rules, a bloody hand and a little luck seem like an unusual recipe for success, but the strange mix led to a victory for a group of students from UCF’s College of Engineering and Computer Science at the National Student Steel Bridge Building contest.

Eight students from UCF’s chapter of the American Society of Civil Engineers (ASCE) competed against 47 teams from the U.S. and Canada, May 23–24 in Las Vegas. They took first place in the bridge stiffness category, fourth place in efficiency, and placed tenth overall in the competition. They also placed third in the overall student competition, which included the concrete canoe section.

“I’m so proud of them,” said Manoj Chopra, an associate professor in the Department of Civil, Environmental and Construction Engineering and team faculty advisor. Sponsored by ASCE and the American Institute of Steel Construction (AISC), and hosted by the University of Nevada, Las Vegas, the competition gave students design and construction planning experience and an opportunity to compete against some of the nation’s top engineering schools.

Teams were given nine months to create a functional and visually attractive 20-foot-long bridge as a replacement for a century-old highway bridge. Awards were given for stiffness, weight, construction speed, display, structural efficiency and economy.

Prior to the finals, UCF beat 25 schools, winning first place at the southeast regional conference in Nashville in March 2009.
Dear CECS Alumni and Friends:

As the newly appointed Interim Dean of the College of Engineering and Computer Science, I feel privileged to write this welcome message in this inaugural issue of our college’s newsletter, CECS Updates. This newsletter is intended primarily to communicate with our alumni and friends. One of my priorities since becoming Interim Dean this past January is to engage our alumni and friends and keep you informed of the outstanding work that is being accomplished in our college, in part, due to your continued support.

Our college is a mere 40 years young and today it is one of the largest in the country, enrolling more than 6,000 students. In this issue of CECS Updates we feature some highlights of our recent accomplishments: 

- Our college's sponsored research expenditures for 2008 reached a record $24.3 million.

- Our faculty published 297 archival journal papers and 408 conference papers in 2008. This corresponds to an average of more than two journal papers and three conference papers per faculty member respectively.

I do not have to tell you what a challenging year this has been! In the face of considerable budget cuts our faculty and staff continue to provide more for less. We operate in an environment where colleges compete for the best students and try to attract and retain top faculty. My number one priority is to strengthen our programs and ensure that we have the most up-to-date facilities so that our graduates can excel in a complex technological world and our faculty can innovate and be the best at what they do. As we move forward in shaping the future of our college, I intend to build on our strength and encourage faculty and staff to pursue excellence in everything we do.

In the face of these challenges, I am pleased to report to you that our college remains a vibrant place where new initiatives and activities are undertaken every day. Let me share with you some highlights of our recent accomplishments:

- Our college's sponsored research expenditures for 2008 reached a record $24.3 million.

- Our faculty published 297 archival journal papers and 408 conference papers in 2008. This corresponds to an average of more than two journal papers and three conference papers per faculty member respectively.

I hope you enjoy reading CECS Updates. If you have not already done so, I also urge you to join your fellow alumni and CECS friends and take an active role in the future of our college. Please engage, volunteer, and give to support our efforts. I look forward to sharing news of our successes with you in the future.

Warm Regards,

Marwan A. Simaan, Ph.D., PE
Interim Dean

Harris Corporation Receives EECS Research Award

Harris Corporation has received the Industry Research Sponsor Award from the UCF School of Electrical Engineering and Computer Science (EECS) at Industry Day held on April 24, 2009. The annual award recognizes one company for its consistent support of research activities at the school.

Harris and UCF have an ongoing agreement to promote research and development in a variety of engineering fields.

Kent Buchanan, chief technology officer of Harris and vice president of Engineering for Government Communications Systems said, “Harris has had a strong relationship with UCF for many years and about 690 graduates are employed at every level of our organization. We are honored to receive the 2009 Industry Research Sponsor Award.”

UCF Professor to be Honored by the White House

The White House and the National Science Foundation will recognize UCF professor Lesia Crumpton-Young for her success with mentoring women and minorities and increasing diversity in the study of engineering.

Crumpton-Young, a professor of Industrial Engineering & Management Systems, will receive her award during a fall 2009 ceremony at the White House. She also will receive $10,000 from the National Science Foundation to help further her mentoring efforts.

Lesia Crumpton-Young, recipient of the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring.

Issa Batarseh, director of the School of EECS presents award to Mr. Craig Miller, VP of Research, Harris Corp.
Megan Clementi, an Electrical Engineering alum of spring ’09 was crowned Miss Florida USA 2010 on July 18th. Megan, will represent Florida in the Miss USA pageant. As Miss Florida USA, she will travel throughout the state in support of many nonprofit organizations. She has volunteered extensively for organizations, helping children with life-threatening diseases, including Give Kids the World, based in Kissimmee, FL. A Jupiter native and Orlando Magic dancer, Megan competed with 50 other contestants to take the pageant title in Hollywood, FL.

Megan will make more than 200 appearances throughout Florida and meet with state leaders during her year as Miss Florida USA. She also is the co-host of the new UCF-themed teen show “UKnighted” that launched this spring on UCFTV.

Howard L. Lance, Harris CEO Receives Honorary Doctor of Science

Howard L. Lance, chairman of the board, president and CEO of Harris Corporation, was awarded an honorary Doctor of Science degree from UCF at its spring ’09 commencement. During the ceremonies, UCF President John Hitt praised Lance’s commitment to the community and his leadership. A Melbourne-based global provider of communications and information technology products, software and systems, Harris Corporation is a major supporter of UCF and donated $3 million for the engineering center that bears its name. The company also invested in research programs that have given students opportunities to work side-by-side with industry experts.

Seniors Showcase Green Projects

A bicycle that generates its own electric power, a solar-powered grill, an automated biodiesel fuel processor and a system to track energy usage for better efficiency, were just a few of the projects showcased at the Progress Energy Senior Design Inaugural Symposium for Renewable & Sustainable Energy in April 2009. Twenty teams of students presented innovative ways to conserve energy and save companies and taxpayers money.

Requiring senior design projects to include sustainability, “shows that UCF is really on the cutting-edge of implementing green technology right on its campus,” said Marc Compere, a faculty advisor for two groups of mechanical engineering students whose projects involved enhancing the efficiency and effectiveness of UCF’s campus shuttle system. “We’re using the campus as a giant laboratory for students.”

“By investing in tomorrow’s industry leaders today, we hope to encourage the long-term development and adoption of efficient, reliable and sustainable renewable energy technologies,” said Progress Energy Florida President and CEO Jeff Lyash. “Renewable energy is an important part of the balanced solution necessary to meet our current and future energy needs, and we’re excited about the many innovative and environmentally friendly possibilities that have emerged through this program.”

The senior design projects and the symposium were sponsored by Progress Energy, UCF’s Department of Sustainability and Energy Management, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and Siemens Energy.
Maryam Ghyabi ‘83
Brewing a Passion for Engineering

Fixing her grandfather’s broken kettle was all 13-year-old Maryam Ghyabi was thinking about—how it worked, how it was put together and why it was broken. That curiosity was the start of her love for engineering and has made her one of the state’s most influential female engineers.

Ghyabi left Iran for Florida when she was 17 and soon discovered that there were many opportunities if you were willing to work hard. “I never thought a woman could become an engineer. It was something that wasn’t promoted in our culture, and not even in the United States at the time. But that became a challenge and I knew that’s what I should be,” she said.

At a time when women were not expected to go to college or aspire to have a career outside of the home, Ghyabi studied at a college preparatory high school in her native Mashad, Iran’s second-largest city. She studied mathematics and computers as a freshman amid distant rumblings of war. In advance of the Islamic Revolution her parents sent her to live with her brother, who was studying at Embry-Riddle Aeronautical University in Daytona Beach, FL.

Not having her family was very difficult. “Everything changed overnight. All of a sudden I couldn’t go back to see my parents; my parents couldn’t come see me. They couldn’t send funds. My world was upside down.” But the setbacks only made her more determined to succeed.

Ghyabi enrolled at UCF, and earned a bachelor’s degree in civil engineering and a master’s degree in transportation engineering. “I saw a challenge in the future with gas issues and the influx of people moving to Florida,” said Ghyabi.

She took a job with a traffic planning firm in Jacksonville, but was soon hired by the state Department of Transportation in Jacksonville, FL, where she was put in charge of transportation planning for Volusia County. In 1994, she followed her entrepreneurial dreams of starting her own business, Ghyabi Lassiter & Associates, (now Ghyabi & Associates) a transportation engineering, civil engineering and planning firm, with offices in Jacksonville, Ormond Beach and Lake Mary, FL.

Like many women, Ghyabi has to balance career and family and admits it’s not easy. “My first priority is my daughter, but I’m also responsible for my business, employees and to the community.”

She hopes her daughter sees the positive effects of being involved in the community. Ghyabi is active in several local volunteer organizations including the Volusia County Women’s Network, My Region and the Halifax Area and Orlando chambers of commerce.

Ghyabi is also involved with the American Society of Civil Engineers, American Society for Highway Engineers, American Planning Association and SunTrust Bank Board of Directors. Recently, Florida Governor Charlie Crist appointed her to a four-year term in an at-large seat on the governing board of the St. Johns River Water Management District.

“We all have a responsibility to each other, and (there is) a reason for us to be in this world,” she said. “If we’re blessed, there is a responsibility for us to help others.”

First Place... Again!

After a rough first two days of competition, and a critical motor repair on its twin-pontoon-hulled surface vehicle, the UCF Robotics Club came back strong to take first prize this past June.

This was the second year the Association for Unmanned Vehicle Systems International/Office of Naval Research has run the international surface vehicle competition. UCF has won both years against a formidable field of other universities.

The UCF team is sponsored by the Research Development and Engineering Commands Simulation and Training Technology Center and the UCF Institute for Simulation and Training. Students are from Computer, Electrical and Mechanical Engineering and include team captain Ross Kerley, Chris Bunty, Travis Goldberg, Jonathan Mohlenhoff, Mike Podel, Cassondra Puklavage, and Justin Wiseman. Graduate student advisor is Gary Stein and faculty advisor is Daniel Barber.

Unlike remote-controlled vehicles, vessels in this competition are turned loose at the start of their round and rely on pre-programmed instructions, GPS locators and on-board image recognition systems to guide them through a series of tasks. The rules permit no “outside” help.

This year’s assignment was to make a high-speed run to a set location, negotiate a series of buoys, dock for five seconds in a marked area, fire a water cannon at an on-shore target, grapple a life preserver and return to the starting point.

The “S.S. Boatname” earned enough points to take home the $6,000 top prize.

“I never thought a woman could become an engineer. But...I knew that’s what I should be.”