Two CECS Stars Honored

Two CECS alums were honored at the Black and Gold Gala, UCF’s annual awards program to honor alumni for their professional achievements and dedication to serving the community.

Nicole Stott (M.S., IE, ’92), the first UCF graduate to launch into orbit aboard a NASA space shuttle, was honored with a 2011 Professional Achievement Award. She lived on the International Space Station for 91 days, serving as a flight engineer for Expeditions 20 and 21.

And Dr. Balaji Jayaraj (M.S., MSE, ’03 and Ph.D., MSE, ’11) was honored as the CECS Rising Star Alumnus. Dr. Jayaraj is a metallurgist for Mitsubishi Power Systems Americas.

Both awardees will be featured in a future issue of CECS Updates.

A Spirited UCF Homecoming, Harris Style

Camaraderie and football spirit filled the air on the grounds of the FAIRWINDS Alumni Center where 235 alumni, students, faculty and friends gathered for the CECS Homecoming Barbecue and Tailgate, sponsored by Harris Corporation.

During the event, Harris gave $500 to the student chapter of the American Society of Civil Engineers for having the largest student group attendance.

“This was our most successful homecoming event in the history of our college,” said Marwan Simaan, CECS dean. “We thank Harris Corporation and we thank our alumni who traveled from as far away as New York and Texas to join us for a fantastic afternoon with family and friends.”

“Harris has had a strong relationship with UCF for more than three decades,” said Lisa DeCordova, manager of college recruiting and relations at Harris Corporation. “The Homecoming Tailgate and BBQ is a wonderful opportunity for our executive management and alumni from our recruiting team to network with students, alumni and faculty in a fun, relaxed environment.”

Approximately 770 UCF graduates are employed at Harris Corporation. The company has sponsored four barbecues (two of them pre-football tailgates) for CECS alumni.
MESSAGE FROM THE DEAN

Dear Alumni & Friends,

If you visited CECS this past fall, you probably noticed the crowds of students in the hallways of our three buildings and that most of the classrooms in session had very few, if any, unoccupied seats. Our college has experienced a surge in enrollment in the past three years. In Fall 2008, undergraduate enrollment was 4,468. By Fall 2011, our undergraduate enrollment increased by 40 percent to 6,267, making us the ninth largest school of engineering in the United States, according to the American Society of Engineering Education (ASEE) 2011 statistics. This increase did not just happen accidentally.

Students choose CECS because of the excellent quality of our programs and the high caliber of our faculty who are not satisfied with “just OK” teaching. They do their best to provide our students with the best up-to-date engineering and computer science education possible, supported with a rich research experience.

In the most recent U.S. News and World Report rankings, CECS was ranked 39th best in the country among colleges of engineering and computer science at public universities. In the fall, Hispanic Business Magazine ranked us third best in the nation for Hispanic graduate students. In 2011, we were the fifth largest producer of computer science B.S. graduates, the 17th largest in computer engineering B.S. graduates, the 25th largest in electrical engineering B.S. graduates and the 28th largest in mechanical engineering B.S. graduates.

The CECS Dean’s Advisory Board—made up of members from many large and small companies that employ our graduates—continually advises us on ways to improve our programs and how to prepare our students to succeed. This past year, at the urging of the board, we launched the Engineering Leadership and Innovation Institute (eli²). The primary mission of eli² is to teach students how to improve their communication and presentation skills, how to work in teams with other engineering and non-engineering students, and how to become leaders and innovators in their professions. Several Advisory Board members already have contributed by sharing their lifelong experiences with our students at our eli² Seminar Series.

If you haven’t visited CECS in recent years, please plan to do so in 2012. You will be amazed at what you’ll discover, especially in how eager our faculty and staff are to serve our students and provide them with an unforgettable learning experience at UCF. Please let us know before you plan your visit and we will be delighted to show you around. Robin Knight (robin.knight@ucf.edu), director of development and alumni affairs, is always eager to talk about how you can best support our college. As always, your support is always appreciated.

Warm Regards,

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

Prof. Necati Catbas

A n elite group of 60 engineers age 45 and younger from the United States and Europe met in California to share ideas, forge partnerships and advance the future of engineering.

CECS’s Necati Catbas, a structural engineer, was the only participant from Florida to receive the invitational award to the Frontiers of Engineering (FOE) U.S.-Europe meeting after a highly selective process. The two-day symposium was sponsored by the National Academy of Engineers, the nation’s most prestigious engineering society.

The group discussed cutting-edge developments in four areas of world interest: sustainable cities, the future of manufacturing, smart grids and networks in biology. With continued collaboration, participants will position their work to help solve society’s problems that require multi-faceted and inter-dependent solutions.

“Engineers can’t just look at problems from a narrow view. We have to look at all the relationships between the built and natural environment, social and economic conditions and how they interact with each other,” Dr. Catbas said.

Dr. Catbas serves as associate chair of CECS’s Division of Civil, Environmental and Construction Engineering. He is widely known for his expertise in structural health monitoring, with more than 180 scientific publications and articles. He is the fifth UCF professor to be invited to an FOE meeting.

Endow an Engineer to Support Your Cause

S teven Kerstein, B.S., ET, ‘88 traditionally supports nonprofits that benefit the environment and animals. But this year, he decided to give in a unique way that will directly impact an engineering student working to advance the causes he loves.

Kerstein decided to endow an environmental sciences engineer. His $25,000 gift will be paid over five years in $5,000 installments.

“I’m supporting a future engineer in a field that typically doesn’t receive as much support as other fields.”

He previously thought of endowments as major gifts given by the extremely wealthy. “While I’m more successful than I thought I would ever be, I don’t consider myself part of the ‘top one percent.’ Even so, I realize I can make a direct difference.”

Cinthia and Steven Kerstein—who co-founded the UCF alumni chapter in Manhattan, NY—is a technology consultant in the high-pressure, cloak-and-dagger world of financial investment trading, taking care of all the systems that the traders use.

“Computer system outages aren’t allowed,” he said. “With hundreds of millions of dollars being managed, if something goes down, you’re out of the market. And that would be a problem.”

He considers his UCF education the core of his success. “UCF gave me a great foundation and this is my way to give back. It’s as simple as that.”
Leadership and Global Skills Emphasized in Speaker Series

In January, Progress Energy continued its commitment to excellence by giving $145,000 to support the new CECS Engineering Leadership and Innovation Institute (eli²). The Institute will support and expand three programs, one of which is a seminar series offered each semester.

“Great leaders have integrity, confidence and a shared vision with the people they lead, and they inspire people and do their work with a sense of humility.” These words, spoken by Patrick Toole, general manager of maintenance and technical support services for IBM Global Technology Services, were delivered to CECS students on Nov. 18 to wrap up the Fall 2011 Seminar Series.

“I implore you to use your talents to benefit society and create opportunities for other people,” Toole said.

The eli² Seminar Series featured six successful industry leaders who came to CECS this past fall to deliver powerful messages to undergraduates about leadership, teamwork, thinking globally and how to be successful.

The eli² Seminar Series is one of many leadership and skills-building opportunities for participating CECS students. Fall 2011 speakers also included Lyndon Dupont, vice president, North Central Region, Progress Energy Florida; Oscar Rodriguez, president and CEO, Extreme Networks; Guillermo Novo, vice president, Dow Coating Materials; Michele Markham, senior vice president and chief information officer, HD Supply; and Beverly Seay, senior vice president and business unit general manager, SAIC.

Water Bearers: UCF Engineers Without Borders

Engineers Without Borders-USA (EWB) is not about giving people fish, or teaching them how to fish; it’s about enabling people to build a fishing enterprise. So said Bernard Amadei, a civil engineering professor at the University of Colorado who founded the international humanitarian organization. He visited CECS as a distinguished guest of the Department of Civil, Environmental and Construction Engineering.

Dr. Amadei believes that engineers must hold the public welfare above any other responsibility. His message and mission have inspired 12,000 people—many of whom are not engineers—to join EWB-USA since 2002. Through its 225 chapters worldwide, the organization implements long-term, sustainable solutions to problems, and empowers local residents to help themselves.

UCF’s chapter of EWB-USA has a five-year commitment to provide ongoing assistance to the 300 villagers of Mare Brignol in southern Haiti.

“Theyir overwhelming need is for clean water,” said Andrew Ivey, chapter president and an environmental engineering major. The need became more urgent when a cholera epidemic caused by contaminated drinking water spread through the country after a 7.0-magnitude earthquake struck Haiti in Jan. 2010.

During the chapter’s most recent trips to Haiti, UCF students worked with local Haitian businesses and laborers to purchase materials and install six outdoor clay cisterns that each collects and stores 800 gallons of rainwater; and 34 bio-sand filtration systems (boxes of sand that remove disease-causing microbes, such as e-coli, from the water.) The bio-sand filters require no power source or chemicals.

UCF student Andrey Ivey (r) during a trip to Haiti. Patrick Toole speaks with a CECS student after his Nov. 18 seminar.
Outreach and Diversity in CECS

This year, CECS established the Office of Diversity and Inclusion to signal a renewed emphasis on increasing diversity in the college. The new office supplements the college’s existing office of Outreach and Educational Partnership.

**CECS Office of Outreach and Educational Partnership**

Director Bruce Furino’s goal is to bring high-quality, motivated high school graduates to CECS and keep them here. He does this by bringing together academia, K-12 schools, industry, government and professional organizations as they work to engage pre-college students in STEM (science, technology, engineering and math) programs and activities.

**CECS Office of Diversity and Inclusion**

Under the direction of Fidelia (Ola) Nnadi, associate professor of Civil, Environmental and Construction Engineering, this office works with faculty and staff to constantly improve recruitment, mentoring and retention of students from underrepresented groups. Diversity, Dr. Nnadi explains, is more than skin deep. Rather, it is about the variety of ideas from diverse backgrounds, gender, ethnicity and life experiences required to solve both local and global engineering problems. The more diverse CECS is, the more students are able to gain a competitive advantage in the global economic and technological market.

WISE Mentoring @UCF

CECS’s female undergraduates, often in the minority in their engineering and computer science classes, now have another resource to help them through the rigors of their studies.

WISE (Women In Sciences and Engineering) Mentoring @UCF matches professional women to female sophomores. The pilot program was launched in 2011 with 21 student and mentor participants.

“After their freshman year, many sophomore female students tend to lose sight of their graduation goal,” said Melissa Dagley, director of CECS’s Academic Affairs Office. “That’s where WISE Mentoring @UCF comes in. Providing industry mentors in the sophomore year keeps these students focused on their goals and helps them better understand how industry works, which is beneficial for future internships.”

WISE mentors are women working in science, technology, engineering and mathematics (STEM) careers who, after they receive training, assist students during a six-month mentoring partnership by helping them develop critical skills and facilitating connections with employers.

SAIC coordinates the program along with other industry partners. The Training Connection, Inc. administers the program through SAIC.

“WISE is an effective strategy for personal development, producing tomorrow’s leaders and making a difference in the careers of our future engineers,” said Beverly Seay, an SAIC leader who also serves on the CECS Dean’s Advisory Board.