UC Expands Scholarship Support for Education Related to Robotics

UC's Office of the President and College of Engineering and Applied Science are increasing support for robotics education. In fall 2013, two new FIRST® Robotics Scholarships were awarded to incoming engineering students. Next fall, 25 such scholarships will be offered.

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The University of Cincinnati’s Office of the President and the College of Engineering and Applied Science (CEAS) are now partnering in their commitment to embrace and enhance the flourishing field of robotics.

This fall, they have awarded two FIRST® Robotics Scholarships of $2,500 each to mechanical engineering students Adam and Anthony Ogg. The initial scholarships awarded to the Ogg brothers are particularly significant given their many years as FIRST® Robotics Competition participants and the fact that they will serve as FIRST Robotics ambassadors for UC students over the current academic year.

Beginning next fall (2014), the UC President’s Office and CEAS are making 25 one-time $2,000 FIRST® Robotics Scholarships available to entering freshmen who participated in FIRST® Robotics.

UC President Santa J. Ono affirms, “The global good that fosters and flourishes from robotics technology is undeniable. From replacing human hands during intricate surgical procedures to performing dangerous military operations, robotics is a field that truly improves our way of life. I stand beside CEAS and encourage such innovations in hopes of transforming the world of tomorrow.”
FIRST® Robotics was founded in 1989 to inspire young people's interest and participation in science and technology. Based in Manchester, N.H., the 501(c)(3) not-for-profit public charity designs accessible, innovative programs that motivate young people to pursue education and career opportunities in science, technology, engineering, and math, while building self-confidence, knowledge, and life skills. FIRST® is an acronym “For Inspiration and Recognition of Science and Technology.”

The FIRST Robotics Competition (FRC) is an exciting program that organizes teams, sponsors, colleges and technical professionals with high school students to develop their solutions to a prescribed engineering challenge in a competitive game environment. The competitions combine the practical application of science and technology with the intensity, energy and excitement of a championship sporting event. The program is great fun and results in life-changing, career-molding experiences for its participants.

Scholarship recipient Anthony Ogg reflects, “I have been involved with FIRST Robotics for 11 to 12 years. I’ve been competing as a member of the FIRST Lego League (FLL) and the FIRST Robotics Competition (FRC) for nine years and have also spent the past three years as an FRC team mentor. The experience that can be gained from participating in FIRST is unlike anything I’ve ever been a part of — you get to work with professional engineers to design, build and compete a real robot! Not only do you get to learn the engineering aspects, but there's also programming, design, website design, animation, business plans, teamwork and so much more at play.
“My participation in FIRST led me to my chosen career path of mechanical engineering and has prepared me for the rigorous CEAS curriculum as well as for the challenges I face during my co-op rotations at GE Aviation. I believe that the FIRST Robotics Scholarship will really help to grow the knowledge of robotics at UC, and to be receiving one of the first scholarships is such an honor. I'm at a loss for words.”

This year, FRC reached nearly 60,000 students participating in 2,600 teams. FRC teams come from every state in the United States as well as from Australia, Bosnia, Brazil, Canada, Chile, China, the Dominican Republic, Germany, Israel, Mexico, Spain, Taiwan, Turkey and the United Kingdom. FRC is an international program that is continuously growing. FRC teams participate in 58 regional competitions, 11 Michigan district events, the Michigan State Championship, six Mid-Atlantic Robotics (MAR) district events, and the MAR Region Championship. Four hundred deserving teams qualify to go to the FIRST Championship at the Edward Jones Dome in St. Louis.

CEAS Interim Dean Teik C. Lim says, “Interest in the interdisciplinary field of robotics has rightfully skyrocketed, and our college is showing the results of this interest as enrollment in our engineering program this year has grown substantially. Computer engineering has more than doubled, and admissions to computer science have risen by 94 percent. Other engineering programs, including mechanical and aerospace engineering with a strong focus on robotics, have also seen double digit increases in freshman enrollment.

“Additionally, our students are consistently excelling at co-op experiences utilizing robotics while numerous widely respected organizations are taking note of their significant accomplishments. For example, a trio of our own aerospace students presented ‘Surveillance for Intelligent Emergency Response Robotic Aircraft (SIERRA)’ at the National Council of Space Grant Directors' Meeting. This was the first time that NASA had streamed these presentations ‘live’ online.”
The SIERRA effort has gained national and international attention on the Discovery Channel in both Canada and the United States. Publications dedicated to firefighting have carried stories about the project’s potential in fighting wild fires. A quadcopter equipped with vision and thermal-imaging cameras may be the next generation responder that is “first to enter” a burning building in search of trapped survivors.

No less exciting from a quality-of-life perspective is the work led by associate professor Dan Humpert in the college’s autonomous robots lab, where he and his students have robots delivering pizza, serving meals to home care patients and mowing the lawn.

CEAS Associate Dean Allen Arthur adds, “The CEAS Robotics Club is thriving within the college, and it is great fun to see what their imagination brings to the robotics disciplines. This talented group of students never ceases to amaze me.”

CEAS and robotics are thriving and promise to continue expanding as high school students with FIRST Robotics experience enter UC in even greater numbers.

For more information about the computer engineering program at CEAS, please visit: http://ceas.uc.edu/current_students/curriculum_information/computer_engineering.html.

For more information about the computer engineering technology program at CEAS, please visit: http://ceas.uc.edu/current_students/curriculum_information/computer_engineeringtechnology.html.

For more information about the computer science program at CEAS, please visit: http://ceas.uc.edu/current_students/curriculum_information/computer_science.html.