Summer Research Programs Give Students Taste of Careers, UCF

Posted By zkotala On July 27, 2011 @ 1:27 pm In Community,Science & Technology | Comments Disabled

Like many high school students Megan Herrera from Orlando’s Timber Creek High School enjoys looking at images posted on Google. As one of nearly 50 students taking part in a series of UCF programs for undergraduates and high schoolers this summer, she’s now starting to think of that hobby as a career.

Megan, who enjoys math, is learning how to write programs to adjust the way cameras see objects. The project is part of a program sponsored by the U.S. Army Research Office to introduce high school students to computer vision, the science and technology of how machines see.

Mubarak Shah, Agere Chair Professor of Computer Science at UCF, added the high school apprenticeship programs to a series of summer studies he instigated in 1986 – all geared toward introducing a new generation of students to potential careers in research and computer vision.
Although Shah maintains one of largest groups of Ph.D. students at UCF, he got involved with high school students and undergraduates to support UCF’s goal of offering the best undergraduate education in the state.

“At UCF undergraduate education is a priority” Shah said.

Since 1986 more than 200 undergraduates from more than 35 institutions across the country have participated in UCF’s Research Experience for Undergraduates (REU) program, making it the longest running REU in the nation.

Over the years Shah partnered with other faculty, including his colleagues Neils Da Vitorio Lobo and Marshall Tappen from the Department of Electrical Engineering & Computer Science, and Piotr Mikusinski, Brain Moore and Xin Li from the Department of Mathematics, to pursue additional grants to expand program offerings beyond summer time.

This year five separate programs are offered: The National Science Foundation’s REU, a companion Research Experience for Teachers supplement; Scholarships in Science, Technology, Engineering and Mathematics (S-STEM) and Computational Science Training for Undergraduates in the Mathematical Sciences (CSUMS) in addition to the Army Research Office’s Apprenticeship program.

Emily Hand from the University of Nevada, Reno is enjoying the experience of living in another university town as well as learning the state of the art in tracking individuals in video frames – even when they are hidden from view.

Shah is a recognized expert in the computer vision field and Hand said she wanted the opportunity to learn from him.

Francisco Chapparo-Torrress, a math teacher from Orlando’s Olympia High School who is taking part in the Research Experience for Teachers program, said the summer series provides a bridge for students.

“They are seeing a connection between what they learn and what is real life,” he said. “Now that they are seeing applications they can be motivated to pursue careers.”