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## Summer engineering program for girls provides a fun learning environment

By Tim Stephens

Seventh- and eighth-grade girls from throughout Santa Cruz County came to UCSC in July for a two-week engineering summer school designed to broaden interest in engineering among women.

The 26 participants in the Girls in Engineering program included students from middle schools throughout the county, as well as home-schooled students. They explored engineering concepts through a variety of hands-on activities, attended lectures by UCSC faculty and others, and got advice on preparing for college.

"It's a fun learning environment that enables the students to visualize themselves as future engineers. The opportunity to meet and interact with women engineers can have a powerful influence," said Carrol Moran, executive director of the UCSC Educational Partnership Center (EPC).

The EPC is coordinating the program in partnership with the Santa Cruz County Office of Education and UCSC's Baskin School of Engineering. This is the first year the program has been offered, and Moran said she hopes to see it continued and expanded in future years.

Women are traditionally underrepresented in the field of engineering, and Girls in Engineering is one of many efforts to address the issue at local, state, and national levels.

"It's not just an equity issue. The field of engineering needs more women, because they bring a different perspective to the table," said Vivian Moutafian, a math teacher from Watsonville High School and one of several local teachers involved in the Girls in Engineering program.

The program has three main aims: to expose middle school girls to engineering careers and educational opportunities; encourage academic achievement in engineering, science, and mathematics; and promote participation in other programs focused on these areas, such as science fairs and the California State Summer School for Mathematics and Science (COSMOS).

UCSC is one of four UC campuses to host COSMOS, a residential summer science program for high school students. Participants in the Girls in Engineering program attended four of the COSMOS program's Discovery Lectures. They also took part in practical, hands-on projects and activities that challenged teams of students to engage in creative problem-solving. One of their main projects involved building and programming robots.

"We hope that by exposing these girls to women engineers and by giving them a glimpse into the activities of engineers that they will be inspired to pursue a career in engineering. They will not be intimidated by the idea because they'll have had the hands-on experience and the satisfaction of building a robot, for example, and designing and testing a cardboard bridge," Moutafian said.

The Girls in Engineering program was funded in part by a generous gift from Jack and Peggy Baskin. Jack Baskin, a UCSC Foundation trustee, and his wife, Peggy Downes Baskin, a research associate in feminist studies, are longtime supporters of the campus. Their financial contributions helped establish and grow the Baskin School of Engineering, UCSC's first professional school.

County schools superintendent Diane Siri also contributed staff time and funding to launch the pilot program.



**Sienna Forest, above, of New Brighton Middle School, and Vanessa Acevedo of Pajaro Middle School with the robots they built as part of the Girls in Engineering program**

Photos: Tim Stephens

