

## Broadcom Employee Global Community Involvement



**Rozi Roufoogaran**



As a Senior Principal Design Engineer within Broadcom's wireless and RF team, Rozi Roufoogaran knows about the endless possibilities and potential career options afforded to women that pursue math and science professions. It is for this reason that she volunteers her time to inspire young students to stick with these technical disciplines and has become a role model for girls, showing them that they can use math and science to achieve success in work and that the disciplines are not only interesting and fun, but teach a logical way to think and work out problems.

At the beginning of the 2009-2010 school year, one of Rozi's close friends mentioned that the school her children attend in Culver City were in need of working professionals that could come in periodically and speak to the students about their jobs, products, services, technology, etc. as a way to inform, educate and enthuse young students. When presented with this opportunity, Rozi pursued it and was given her first assignments.

During that winter, Rozi contacted Paula Golden, Executive Director of Broadcom Foundation, to get help in developing a short, 20 to 25 minute hands-on presentation for a kindergarten class and 4th grade class at the Culver City unified school. Paula introduced her to Mike Fuhr at the Discovery Science Center who helped her access ideas and materials for her first presentation.

"We advised Rozi to basically 'teach what she knows' – for example, find a project that explains how wireless communication works and build your message points off of this familiar platform," as Paula Golden explains.



**Mike Fuhr, Rozi Roufoogaran,  
Paula Golden**

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So with that advice and her knowledge of wireless and RF platforms, Rozi fashioned a presentation from paper cups, string and tape, to emulate a basic phone and how the communications transfers from cup to cup (or phone to phone), and how that has evolved into cell phones. This very basic and simple presentation was very well received by the two elementary school classes she presented to, and, it provided Rozi with further opportunities at the school.



“I was not sure what to expect from elementary school students or whether they would even be interested in my presentation. But what I learned changed me, especially as it relates to girl students, who like me when I was their ages, did not even realize the tremendous opportunities that a solid math and science background can bring. I’m a perfect example of this and achieved a Masters in electrical engineering and 10 years later, I’m supervising Bluetooth and RF developments that are literally changing the world and improving our wireless experiences.”

With these first presentations under her belt, the school asked Rozi if she could present to other classrooms and grades, which she has completed. She was also asked to present at a number of ‘per class – per grade’ career days where she, and 4 or 5 other professionals have 10 to 15 minutes to talk about their careers. During many of these career day presentations, Rozi shows Broadcom chip solutions in a variety of wireless devices such as cell phones/smart phones, Blu-ray/MP3 players, PCs/laptops and TV/gaming remote controllers. And the constant message is that a good math and science background will put you in the position of being able to design technology that could change the world.

Now that Rozi has become somewhat of a familiar face at the school, needless to say, she has become a role model for many of the girl students and evangelizes the many opportunities that are afforded to women in a technical career, as well as the importance of a solid math and science background.



### Participation at the Girls Tween Summit

An opportunity presented itself for Rozi through a Broadcom Foundation sponsorship to participate at the upcoming Girls Tween Summit in New York City on October 10, 2010. The Tween Summit is an annual forum that honors tween and teen girls (between the ages of 8 and 14) who are doing great things to change their worlds, from donating money raised, to helping those in need, to campaigning against hate, and so many other great acts of kindness.

Rozi agreed to travel to New York City with Paula and Mike to listen and inspire 300 tween and teen girls as one of 8 successful women on a 'Listening Panel' organized by the Tween Summit. Given her experiences as an engineering student, and later, as an engineer, Rozi was in a good position to listen, respond and consult these girls on a variety of career possibilities based on a solid math and science background.

Later in the day, Rozi joined Paula and Mike to help oversee a hands-on, project based science exhibit that Mike's Discovery Science Center used at this event to showcase engineering, volume and buoyancy. Using a plastic container of water, household tin foil and marbles, the girls were told to build a boat to cross the East River that could carry as many passengers as possible. The girls built many variations of tin foil boats to float – and when they failed, they were eager to try again.



2010 Tween Summit in New York City

“The process of learning from mistakes is essential to becoming a good scientist or engineer and we encouraged the girls to see this process as a positive rather than a negative” said Rozi.

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“Many girls tried over and over again at designing a better boat and already have the foundation to be a good engineer.”

On a side note, this Tween Girls Summit project gave Broadcom Foundation the opportunity to promote the Discovery Science Center’s signature afterschool program called ‘Future Scientists and Engineers of America’ (FSEA) for which Broadcom Foundation is funding the development of a new online kit to learn about electrical engineering. Rozi, along with other Broadcom colleagues have volunteered to be on the team to develop the kit.

### **Earlier Volunteer Projects:**

In the spring of 2005, Rozi and two engineers started the Los Angeles professional chapter of Engineers Without Borders (EWB) which began with a tsunami reconstruction project on the southeast coast of India and currently has a number of active international engineering projects. The organization, of which Rozi volunteered for 2 years, provides professional mentors for UCLA, USC and Loyola Marymount University student EWB chapters, and participates in local outreach activities throughout the Los Angeles area.

Over the last few years, Rozi has donated a lot of her time to promoting a solid math and science background as a means to challenge yourself, challenge others and change the world to be a better place to live. Many young students today, especially girls, have a better understanding of what the future could bring due to Rozi’s volunteer efforts.