Educators seek to engineer the future

Stevens Institute program aims to introduce engineering to the classroom

By CELANIE POLANICK
Staff Writer

PISCATAWAY — When Verizon engineer Carlos Anton-Khury asked eighth-grade science students at Quibbletown Middle School about interest in becoming an engineer, only two of about two dozen teenagers indicated interest.

Wearing a bright red Verizon Oxford shirt, Anton-Khury was at the school to teach students lessons about how batteries work, and to advance the agenda of a program that seeks to bring more engineering to New Jersey classrooms.

Rodrigo Suarez, 13, wants to be an automotive engineer. He learns plenty of science at school to help him along, he said, adding, "The people who don't want to learn don't learn as much."

His teacher, Eddie Cohen, teaches skills related to automotive engineering and design, mechanical building and the scientific method by allowing his students to build small, motorized cars. They're supposed to be building toys that could be sold to children, a real-world application that could inspire them to take math and science more seriously, Cohen said.

"Today was more of an extension to the lesson — how using the gears and electricity create magnetic fields and generators," Cohen said. "I don't think (students) realize the huge need for Americans in engineering, which is why all this is happening."

Anton-Khury's visit was part of Engineering Our Future NJ, a program presented by the Stevens Institute with a $500,000 grant from the Verizon Foundation, which aims to help students throughout the state experience engineering as an integral part of their K-12 education, not only as an elective or extracurricular activity.

One of the program's immediate goals is to train 2,000 New Jersey teachers to effectively implement grade-appropriate engineering lessons into their classrooms — so that when the state's core curriculum is up for review in 2009, adding more engineering will be a priority, said Mark Bocchieri, Verizon's director of external affairs.

If the program works, there will be more learning today and more engineers in the future, the program's director, Dawna Schulz, said.

"Globally, there's a shortage of technical workers, and that's going to get worse as baby boomers retire, especially in the defense industry," she said.

Various related programs are coming to T. Schor, Conackamack and Quibbletown schools in Piscataway; Union County TEAMS Charter School and Plainfield High School in Plainfield; Far Hills Country Day School in Far Hills; public schools in Green Brook; Mount Prospect School in Bernards; public schools in Westfield; Woodglen School in Lebanon Township and Valley View School in Watchung.

Today in Hoboken, Stevens will hold the Engineering Our Future NJ Summit, where more than 200 school administrators from across the state will discuss the future of engineering in New Jersey.

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Verizon engineer Carlos Anton talks to eighth-grade students about engineering at Quibbietown Middle School in Piscataway on Thursday.

Kimberly Walker, 13, asks Carlos Anton a question during his visit.