Engineers take center stage at SUNY

Event caters to youngsters

One aim of the college's Engineering Day is to get middle school students interested in careers in the field.

By KATHRYN GILL
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NEW PALTZ — The new faces of engineering at SUNY New Paltz range from a 13-year-old middle school girl to a 44-year-old recent graduate who works as a fire marshal in New York City.

Both were among those attending the college's Engineering Day on Wednesday, which showcased the innovations of high tech companies in the Hudson Valley and the work of students and professors at SUNY New Paltz. Students at middle schools throughout the region were invited to the event.

Michael Cancel, who has worked for the New York City Fire Department for 20 years, said he pursued his engineering degree on a part-time basis over the past 6 1/2 years, taking about three classes a semester.

"I've always been interested in science," said Cancel, who plans to retire from his city job next month. A father of three girls, including 14-year-old twins, Cancel said he doesn't plan on relaxing.

"I can't take it easy — I have to do something with my life," he said.

With his newly minted degree, Cancel plans to break into the engineering field with the goal of doing something to "benefit mankind." He said he is considering pursuing a career in artificial intelligence or nanotechnology.

Cancel said the pursuit of his degree became especially challenging after the terrorist attacks of Sept. 11, 2001, as his station was "next door" to the World Trade Center. "I happened to get out alive," he said.

He dropped out of school for two semesters to help in the recovery from 9-11, but returned to the college, determined to get his degree. He credits his professors, especially Yaser Khalifa, with encouraging him. "They molded me into who I am today," he said.

Erin Rose, 13, who said "just the smart kids" from her school, Rombout Middle School in Beacon, were selected to participate in the fair, said she's not sure if engineering will be an academic pursuit in her future. Even so, the eighth grader said the stereotype that boys are better at engineering than girls is "not at all true." She said she plans to take advanced placement math and science at Beacon High School next year.

Rose said she enjoyed a magic show by Lisa Lewis, a performer who incorporated a demonstration of centripetal force into her routine.

Robert Foster, a 22-year-old
senior at the college who also works part time in the Metrology Department of IBM in East Fishkill, showed off the Evolutionary Music Composer, a computer that can compose original music. Foster said the computer produces music autonomously by taking a population of notes and picking out those it thinks sound good.

"It's pretty cool," he said of the project, which he said was begun by Khalifa in the summer of 2002.

"Music is attractive to undergraduate students to get them involved in research," Khalifa said. Many people equate creative thinking with intelligence, he said, making the computer program a good way to explore ways of developing artificial intelligence.

"Our goal is to reach kids early, in the eighth through 10th grades, and get them exposed to and interested in science and engineering," said Frank S. Falatyn, president and chief executive officer of Kingston-based FALA Technologies. Students surrounded Falatyn's booth, where he was raffling off a compact disc burner.

Falatyn said it's a myth that technology companies are outsourcing all their jobs overseas.

"The work is not going to China," he said. "There are many opportunities for young people right here."