Central Brooklyn Robotics Initiative Brings Hi-Tech to Urban Students

By Mary Frost

Last Saturday, the gym at Riverside State Park in Manhattan literally crawled with robots. As crowds cheeered from the bleachers, robot-sized automaton installed model solar panels on the roofs of tabular LEGO buildings, dangled simulated rivers, moved fuel to power plants and ran power lines to communities.

The robots, human creators, hovered over cities built on wooden platforms, had just two-and-a-half minutes, to put their creations through their tasks, and the air crackled like a sports tournament—especially when the PS. 21 cheerleaders jumped into action.

It was the New York City FIRST LEGO League Championship Tournament, and roughly eighty 4th-9th grade teams competed in this spectacle of science, math and technology.

Among the schools vy;ng in the tournament were five central Brooklyn teams that were mentored by Polytechnic University students as part of the Central Brooklyn Robotics Initiative (CBRI), led by Polytechnic University Professors Vikram Kapila and Noel Kricher.

Thomas’s team would never have entered the competition were it not for CBRI, funded by Independence Community Foundation with additional funding from JP Morgan Chase. CBRI introduces middle- and high school students from Central Brooklyn (and their teachers) to the foundations of robotics technology.

“The object is to work with schools in central Brooklyn areas with a large minority population, usually economically depressed, with not a lot of science or engineering events going on,” said Polytechnic University’s Professor Vikram Kapila. Amazingly, five out of the ten CBRI teams qualified for Saturday’s city-wide competition.

It was a rigorous competition,” Kapila said. “Three of our teams won awards there. While it was not necessary to win awards, it was the icing on the cake.”

Besides PS.21, Benjamin Banneker won the Teamwork Award and Bedford Academy took home the Against All Odds award. PS. 11 and PS. 81 also participated in the CBRI program.

Dr. Noel Kricher, Industry Professor of Humanities and executive director of the David Packard Center at Polytechnic University, said that CBRI fellows from Polytech worked with teachers and students to master the various tasks.

It’s Kricher’s belief that a rich resource in urban, African-Americans and Latinos is “basically untapped.”

“We’re not only concerned with kids who score in the 1300’s on the SATs, we believe you can encourage young people by giving them an opportunity,” he told Learning Curve.

“What they learn is that science, math and their application in the real world is invaluable.”

Polytechnic University senior Andrey Farnickov mentored the PS. 21 students. He says that his students gained “lots of research skills, know-how, teamwork and a different way of thinking—how to program a robot the way a robot might think. They understood the concept of keeping it simple, instead of complicating things.”