NEWS

NCE TECH CAMPUS FOR MORE THAN 65 YEARS FEB. 16, 2000

Blue Cross Blue Shield of Michigan backs Lawrence Tech Robofest; University trains teachers in robots

By Bill King

Several Lawrence Technological University professors were just parents involved with their children and helping their children's school's involvement in robot building contests at the local level. Then they collectively got an idea – Lawrence Tech's Robofest. The competition quickly got a boost when Blue Cross Blue Shield of Michigan recently agreed to sponsor the event April 15 – during Lawrence Tech's Open House weekend.

Robofest, Sat., April 15, 1-6 p.m. at Lawrence Tech's Don Ridler Field House, will feature two categories. Students from middle and high schools, and colleges and universities will have to build and program a robot from a kit, such as LEGO's $199.99 MINDSTORMS, and program the computer to complete one of several tasks. These competitions are cropping up and expanding around the world. Lawrence Tech's is one of only two local such competitions sponsored by institutions of higher learning.

Robofest was the brainchild of Dr. Chan-Jin Chung, assistant professor of computer science. Chung had served as a coach for an elementary school in Troy with a robot competition team, but he saw a lack of challenge to the competition. So, Chung came up with one of his own. He created a website – www3.ltu.edu/~robofest – for people to obtain information and to submit a request to enter the contest.

"No one else is doing this kind

Continued on page 8

Lawrence Tech's Cont. Ed. teaches teachers how to program little workhorse robots

By Bill King

When LEGO MINDSTORMS robot computer programming kits hit the market they were meant to entice school children to learn simple computer and robot programming. The result was a lot of parents and teachers in Southfield schools left scratching their heads and looking at a pile of LEGO parts, and a central processing unit.

In stepped Lawrence Technological University's Division of Continuing Education. The Division offered a LEGO robot building class and got a surprise number of inquiries and signups. Eventually, teachers from

Continued on page 8

ROBOFEST

Continued from page 1

of robot competition," Chung said. "In many of these competitions, the playground and dimensions are known by all team prior to the event. The robot know how far it can do and what to do next. Our competition is fully autonomous. The challenge for students coming to our competition will be coding in the problem."

The robots will collect information via light, heat or touch sensors, using that data to resolve various problems they encounter. The problems, which teams can take on in whole or pick a problem from the three, include: RoboRace, a robot will follow an unknown path and return "home" when it detects the dead-end; Robot Fire Fighters, a robot must find a candle situated on the track and extinguish the flame with a fan; and RoboTag, tag or avoid being tagged while staying in the playing field.

At the competition, students will arrive with the robots they built and programmed based on the basic information of the individual events. Once at the competition, the student teams may have to do some tweaking using their PC on the program to fine-tune the robot's onboard computer.

Andy Borchers, Lawrence Tech's director of information technology programs and distance learning, has been enlisted to help his daughter's sixth-grade class from Clarkston.

"We're glad to see the young school children taking this on. In order to get these robots to do their thing the students are going to have to understand some engineering and computer science concepts," he said. "It's a logical connection to Lawrence Tech because this is what we teach here."

Lisa Anneberg, professor of electrical engineering at Lawrence Tech, was a coach for her daughter's Girl Scouts troop, which participated in the University Detroit-Mercy competition. She is preparing them now for Robofest.

"When I first got to them, they were having problems just getting the robot to go straight," Anneberg said. "This was one of the big things they learned – how to solve problems. Once they realized how to break the problem down into smaller bits and master one step they got the robot to do what they wanted it to do."

She said the competition was "fairly complicated," but said the challenges offer hands-on learning opportunities.

"These children will learn so much," she said. "It's good for Lawrence Tech. It's good for engineering. It's good for civilization."

"For the students, they get to do something that goes beyond just classroom academics," said Rory Savageau, computer support specialist, Lawrence Tech's Veraldi Center for Educational Technology User Services, who is assisting Chung with organizing Robofest. "This will give the students the practical side of electrical and computer engineering, some mechanical engineering, and hopefully, a lot of fun."

Prizes include monetary prizes and scholarships to Lawrence Tech.

For further information on Robofest call Chung at Lawrence Tech's College of Arts and Sciences at (248) 204-3504 or visit the website www3.ltu.edu/~robofest/.