Computer program design competition shows savvy students

BROOKINGS, S.D. — The annual SDSU Program Design Competition gives high school students the opportunity to consider a career in computer science engineering or software programming.

This year’s competition at South Dakota State University March 27 brought 36 high school students to campus to demonstrate results of their design of a computer board game.

The students came from eight regional high schools where they’d spent approximately 12 weeks designing a game called Reversi/Othello. The game used a square, checker-board grid filled with black and white discs. Opponents have to turn over each other’s discs with the winner declared from the one flipping the most discs during a specified period. Games could be designed for human-to-human play, human-to-computer action or both.

Competition organizers said high school students’ computer design efforts required them to know about algorithms, data structures, graphics, artificial intelligence and programming methodology and languages.

This is the fifth year SDSU has hosted the competition through its Computer Science and Software Engineering programs in the College of Engineering. Each year, a problem is offered to schools in January to solve or complete a design before late March.

The event brought three-person teams to campus to demonstrate their design in front of a panel of judges which included computer science and software engineering faculty along with representatives from Daktronics and SAIC at EROS. Both industry and government entities have ties to SDSU and began about the same time with a handful of employees. Both are now known worldwide for their work, much of which uses computer programming and design.

“The competition provides high school students the chance to interact with young people from other high schools and industry mentors,” said Professor Sung Shin, founder of the high school challenge.

“They also learn to sharpen and demonstrate their problem solving, program design and teamwork skills.

“Companies like Daktronics, Microsoft and Adobe look at winners of these contests as future employees,” Shin concluded.
First place went to Brookings High School, members Trent Hesler, Sam Kool and Zach Kantack. Sioux Falls Lincoln High School, members Blake Neff, Brandon Nesiba and Nathaniel Nesiba, took second place. Third place went to Champlin (Minn.) Park High School, members Leo Loobeek, Dylan Mcquire and Matt Richard.

“The competition provides a platform for industry and academia to come together to encourage the next generation of creative professionals,” said Sunho Lim, coordinator, SDSU Software Engineering.

Industry supporters included Daktronics, Inc., Adobe and Microsoft as well as the SDSU Department of Electrical Engineering and Computer Science and Dr. Chan J. Park, a general surgeon at Avera Brookings Medical Clinic. SDSU Computer Science graduates working at Microsoft and Adobe supplied software to give as prizes. The Brookings Pizza Ranch provided lunch for the participants.

First place award winners received a $1,000 scholarship for two years, an award plaque, I-pod Shuffle and Microsoft software. Second place winners received a $500 scholarship for two years, an award plaque, I-pod Shuffle and Microsoft software. Third place winners received a $250 scholarship for two years, an award plaque, I-pod Shuffle and Adobe software.

For more information on the SDSU Programming Design Competition, contact Electrical Engineering and Computer Science Assistant Professor Sunho Lim at <Sunho.Lim@sdstate.edu>.

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Photo 1: First place Programming Design Competition champs from Brookings High School are pictured after winning with, from left, Department Head Dennis Helder; team members Zach Kantack, Trent Hesler, and Sam Kool; and Professor Sung Shin, competition founder.

Photo 2: Second place Programming Design Competition champs from Sioux Falls Lincoln High School are pictured after winning with, from left, Department Head Dennis Helder; team members Nathaniel Nesiba, Brandon Nesiba, Blake Neff; teacher, Charnelle Woolegede; and Professor Sung Shin, competition founder.

Photo 3: Third place Programming Design Competition champs from Champlin (Minn.) Park High School are pictured after winning with, from left, Department Head Dennis Helder; teacher Joe Ward; team members Leo Loobeek, Matt Richard, and Dylan Mcquire; and Professor Sung Shin, competition founder.