

# Rescue from Mars is theme of SIUE's Annual Botball Tournament

March 18 2016 5:10 AM



**EDWARDSVILLE** - Middle and high school students will engage their minds and their robots when **Southern Illinois University Edwardsville** hosts its annual Botball tournament on Saturday, March 19. This year's theme is "Rescue from Mars."

This is the 19<sup>th</sup> Botball season and the 14<sup>th</sup> year that SIUE will host the region's tournament. Seventeen teams will be coming to the Morris University Center's Meridian Ballroom for the competition.

The event, coordinated through the **KISS Institute for Practical Robotics**, pits teams against one another in two-minute rounds. A team's student-created robot must demonstrate its ability to perform a number of tasks worth varying points. The regional competition is open to the public and typically draws approximately 200 spectators with teams from Illinois, Missouri, Indiana and Kansas.

"The goal is to use hand-on robotics programs in order to communicate the excitement, knowledge and practical understanding of technology, engineering and math," said **Gary Mayer**, assistant professor of computer science in SIUE's School of Engineering. "We try to bring this opportunity to students of all ages and backgrounds."

In a situation similar to the recent movie "The Martian," the first manned mission to Mars was evacuated, and BotNaut was left behind. Now, he's stranded and has to survive until the rescue mission arrives. Fortunately, a crew of robots is already on the crater floor building a habitat. BotNaut will need their help with a wide variety of tasks to improve his chances for survival.

A team often includes both middle school and high school youths. Those who participate in the regional Botball tourney are actively working on robotics year-round.

"Ultimately another goal with this competition is to make students comfortable with STEM (science, technology, engineering and mathematics)," Mayer said. "Often the robotics kits are used as part of classroom instruction or for after-school activities during the off-season."

Learning how to write computer programs that power the robot is but one skill that the Botball competition instills in youths. Competitors learn the C programming language, one of the most widely used software languages in the world. Honing communications and teamwork talents is another key advantage of participating in the Botball tournament.

"Their robots are autonomous, so there's no remote control," Mayer said. "Once the light source activates the robots and the round begins, students are not permitted to intervene. It's all up to the robot from that moment on to meet each challenge."

In the first portion of the daylong event at SIUE, teams enter a seeding round uncontested. The points earned during that round determine placement in the double-

elimination bracket. A team's overall score is earned by accumulating points equally from the seeding rounds, the tournament and also documentation provided to the judges, such as design of the robot and the team's specific approach to problem-solving. An alliance match allows teams that lost early in the day to compete against each other, so they remain a part of the day's action.

More than 8,000 middle and high school students around the world participate in KISS Botball competitions.

Doors open at 8 a.m. Seeding rounds begin at 10 a.m. Double-elimination rounds begin at approximately 1:30 p.m.