SIUE engineering students take first in IEEE Black Box competition

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EDWARDSVILLE - Students from the Southern Illinois University Edwardsville School of Engineering are celebrating strong first and third place finishes in the 2018 Institute of Electrical and Electronic Engineers (IEEE) Saint Louis Section Black Box Competition held Saturday, Nov. 3 at SIUE.

The competition included students from Saint Louis University and Missouri S&T. SIUE junior computer engineering major Joel Rahlfs, of Ellis Grove, and junior

electrical engineering major Jerome Ukah, of Nigeria, took first place in the analog contest, winning $500. Senior mechatronics and robotics engineering major Shawn Gilles, of Troy, earned $200 for his third place finish in the digital contest.

Students competing in the analog category are given an analog circuit enclosed in a "black box" and are asked to draw the electrical schematic of the circuit inside. The box contains only four terminals that the teams use to make electrical measurements that help them unravel the mystery of what is inside.

In the digital contest, students are given a programmable logic device with a pre-programmed circuit. They observe the behavior of the circuit and then try to draw a schematic for the "mystery" design.

"Contests like this enhance the ability of students to perform reverse engineering tasks when they are out in the workforce, and it gives our students a chance to interact with others from great institutions," said George Engel, DSc, professor in the School of Engineering's Department of Electrical and Computer Engineering. "Participation in a student contest creates lifelong memories and creates a bond between the student and the professional society that often lasts for life."

SIUE will host the 2019 competition. By long-standing tradition, the school which wins the analog contest hosts the event the following year.

The IEEE is comprised of engineers, scientists and students. It is one of the largest professional organizations for engineers in the world.

The [SIUE School of Engineering](#) offers one of the most comprehensive and affordable engineering programs in the St. Louis region with eight undergraduate degrees, five master's degrees and a cooperative doctoral program. Students learn from expert faculty, perform cutting-edge research, and participate in intercollegiate design competitions. Companies in the metropolitan St. Louis area provide students challenging internships and co-op opportunities, which often turn into permanent employment. Students gain hands-on experience in the School's state-of-the-art facilities, including the new Fowler Student Design Center.