

# SIUE Engineering Students Claim Top Prizes in IEEE Competition

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**EDWARDSVILLE** – Southern Illinois University Edwardsville School of Engineering (SOE) students are celebrating first-place and runner-up finishes in the 2019 Institute of Electrical and Electronic Engineers (IEEE) Saint Louis Section Black Box competition hosted by SIUE on Saturday, Oct. 26.

SIUE students competed with teams from Washington University in St. Louis, and Missouri University of Science and Technology (MS&T) in analog and digital categories. Five teams participated in the analog competition, while four teams competed in the digital contest. Cash prizes were awarded for first (\$500), second (\$300) and third (\$200) place.

“These competitions enhance the ability of students to perform reverse engineering tasks when they are out in the real world,” said George Engel, DSc, professor in the SOE’s Department of Electrical and Computer Engineering. “Lifelong memories are created along with a bond between the student and the professional society. It also gives our students a chance to interact with others from great institutions.”

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

In the analog competition, SIUE’s teams of seniors Shawn Gilles and Brycen Dhom, and seniors Steven Vendetti and Mark Derhake finished second and third, respectively. MS&T’s Evan Fitzgerald won the event as he became the first student in recent history to completely solve the problem.

In the digital contest, students were given a programmable logic device with a pre-programmed circuit. As in the analog contest, students observed the behavior of the circuit. They were asked to describe the circuit, which was programmed into a Field Programmable Gate Array (FPGA) based on their observations.

SIUE senior Usman Khan and freshman Cole Johnson teamed to win the digital contest, while seniors Joel Rahlfs and Brad Johnson claimed runner-up. WashU’s Connor Monahan and Michael Horwitz were third.

MS&T is the site for the 2020 event as long-standing tradition calls for the school that wins the analog contest to host 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](#) is one of the largest engineering schools in the region. It offers comprehensive and affordable engineering programs with eight undergraduate degrees, five master’s degrees and two cooperative doctoral programs. 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.