

# **SIUE highlights Worden Elementary Space Day with robots and stars**

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EDWARDSVILLE - The Southern Illinois University Edwardsville School of Engineering and SIUE's Center for STEM (science, technology, engineering and math) Research, Education and Outreach made their annual contribution to Worden Elementary School's Space Day by entertaining and educating fifth grade classes on Wednesday, Feb. 27.

Gary Mayer, PhD, associate professor of computer science, discussed robotics and, along with members of the Autonomous Robotics Club (ARC), provided robotics

demonstrations during the morning. STEM Resource Center Manager Colin Wilson gave Star Lab science demonstrations during the afternoon.

“Our goal is to engage students at a young age, specifically minority and female students, and raise their interest in STEM,” Mayer said. “Given the level of consistent engagement in the 50 minutes we saw each class, including excited faces, smiles, questions and creative answers, and the annual feedback we receive from teachers, I believe Worden Elementary Space Day puts students on the right path to consider future possibilities in STEM fields.”

Worden fifth grade teacher Tonya Gurley said the students were excited to see various robot demonstrations. “They loved the opportunity to test the robots’ abilities,” Gurley said. “A huge favorite was Puppy-bot, which could roll over, do a handstand, or dance upon hearing a specific number of hand claps. Students learned that robots sense, think and move.

“They were impressed with the robots’ abilities to help people and complete dangerous tasks. Gary Mayer and his robotics team inspired students to make their own robots and possibly pursue degrees in computer science and engineering.”

Along with Puppy-bot, students were visited by Darwin, a bipedal robot who plays soccer. They also interacted with Taz, a navigation robot capable of mapping a new environment and traversing it when given goals.

“In my outreach experiences, I’ve never seen a group as engaged and responsive as the students at Worden Elementary,” said ARC volunteer Jacob Novosad, a junior in the SIUE School of Engineering. “They offered creative answers and solutions to problems presented by Dr. Mayer. Their excitement served as a great reminder to never be afraid to voice your opinion or idea, because even if it isn’t a practical answer, it may lead to a creative solution.”



Gurley added that the students were amazed by the star and constellation projections in the Star Lab. “They were fascinated by the topic of exploding stars and learned the stages of a hypernova,” Gurley explained. “Equally interesting was the history of constellations and the display of different constellations during different times of the year. Colin Wilson’s Star Lab show was out of this 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 two cooperative doctoral programs, all housed in a state-of-the-art facility. 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. All undergraduate programs are accredited by their respective accreditation agencies.

The Southern Illinois University Edwardsville [Center for STEM Research, Education and Outreach](#) comprises an independent group of researchers and educators, innovating ways to engage students and the public in science, technology, engineering and math (STEM). Within the SIUE Graduate School, the Center brings together research faculty, graduate students and practitioners to conduct education research. The Center contributes educational expertise to SIUE undergraduate classes and provides professional development for K-12 teachers. The Center boasts a significant library of equipment and resources, which are available for loan at no cost to campus and regional instructors. For more information, visit <https://www.siue.edu/stem/about.shtml> or contact STEM Center Director Sharon Locke at (618) 650-3065 or [stemcenter@siue.edu](mailto:stemcenter@siue.edu)

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