



Students' Robotics Project Wins at STEM Conference

By ESU

EAST STROUDSBURG - Using a retrofitted robot arm from the 1990s, three East Stroudsburg University computer science students won the top award in math and computer science for their robotics project at a recent conference on STEM (Science, Technology, Engineering and Math) for universities in Pennsylvania's State System of Higher Education.

Under the guidance of Computer Science Professor Haklin Kimm, Seniors Nicholas Khouri, Melissa Schneider, Donald Pungner and Kurtis Trego have been working for about a year on the project which demonstrates how older parts in robotics can be used with new ones and still work effectively. Trego was unable to attend the conference.

"Our goal was to take a very, very old robot arm and move it with a Super Nintendo controller," said Khouri. "It was a research idea that explores how we can take legacy pieces of technology and manipulate them with new, modern technology."

The enterprise entitled "Robot Arm Control using Nintendo Gamepad with OpenCV and Python" aims to make the technology more accessible.

1990 Robotic Arm "We can create something of equal quality with a more affordable price range," said Khouri, a native of Whitehall Township, Pa.

"And we can also still expand into the realm of new modern technology in robotics."

The students refitted the robot arm – dubbed Rhino – with a camera so it can discern its surroundings and act on them. The endeavor honed the students' skills at building the computer hardware and creating the software to run it.

"So right now it can pick up different color balls, it can identify the colors," said Schneider, of Dunmore, Pa. "It can also pick up, say, a Coca-Cola soda can completely by itself without being controlled by anything."

Dr. Kimm was especially pleased at how well the students worked together to find solutions to stumbling blocks along the way.

"Being able to work as a team is important in the field," he said. "They know how to communicate, they know how to find the problem, and they know how to solve the problem together."

Pungner, from Greeley, Pa., said Kimm was very helpful when the students had questions and working as a team enabled each of the students to contribute their strengths.

"If someone is better at one component, like the electrical aspect, somebody is better at the programming, and someone else is better at interfacing them together, it lets you figure out what you're good at and focus on that," he said.

The students kept that cooperative spirit going despite the inevitable setbacks that come with invention.

The STEM conference, held Nov. 2 at Kutztown University where they won the top Math and Computer Science award, was a great opportunity to network and see what other students in the field are working on, Schneider said. It attracted more than 140 participants with over 70 presentations from 10 PASSHE universities, according to organizer Kutztown University mathematics professor Yun Lu.



Lehigh Valley Zoo Mourns Loss Of North American River Otter, Naya

By Matt Provence

(Schnecksville, Pa.) — Lehigh Valley Zoo is deeply saddened to announce its female North American river otter, Naya, passed away earlier this week. Naya, and her companion male Luani, have been beloved by staff and guests since their arrival at the LV Zoo in 2016.

At 14 years old, Naya was past the median life expectancy of North American river otters in the wild. As a member of the Association of Zoos and Aquariums (AZA), LV Zoo is committed to providing its animals with optimal welfare that allows them to thrive longer than their wild counterparts.

During Naya's annual exam, LV Zoo veterinarians found a mass near her uterus. The mass was successfully removed during surgery last week, after which time Naya was closely monitored by LV Zoo staff. While she initially appeared to be recovering well, Naya declined rapidly and -- despite staff efforts -- ultimately passed away.

While mourning the loss, LV Zoo staff will be carefully observing Luani as he adjusts to this change.

Since her arrival, Naya became known for her back flips and playfulness as she and Luani happily swam the waters of their habitat inside the Lehigh Valley Health Network North American River Otter exhibit. LV Zoo members and guests are encouraged to share any photos or memories of Naya on social media.

Guests can visit Luani during LV Zoo daytime winter hours of Wednesday through Sunday, 10 a.m. to 3 p.m. The LV Zoo is closed on Christmas Eve, Christmas Day, New Year's Eve and New Year's Day; though Winter Light Spectacular will open at 5 p.m. on New Year's Day.



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