

We can challenge ourselves with whatever we want to do. I want to identify global problems and find solutions.

The Robot Contest Brought Me to ICT

I heard that KIT won the NHK ROBOCON, and I wanted to make a robot myself and participate in the competition. I also heard that at ICT, we can learn about machinery and learn English as well, which will be needed in the future, so I decided to come.

Most of the classes are taught in English, and at first, I couldn't understand what the teachers were saying. Then, I went to see the teachers after class, and they taught me at a slower pace, so I gradually came to understand.

The Maker Studio is My Heaven

Hakusanroku Campus provides an environment in which you can challenge yourself with anything you are interested in. The Maker Studio is my favorite place. It has 3D printers, laser cutters and other machines that you can use to make your idea a reality immediately. For people like me, who love machinery, it is heaven. I am now making a robot

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for the robot contest and tops for the top competition. There were machines I had never used before, but I know how to use them now, thanks to the instruction provided by my teachers.

Practicing Problem Solving in the Engineering Design Class

In the Engineering Design Class, we arranged interviews with local residents to identify and solve local problems. We made an AI system to recognize monkeys. It was very difficult to trim the monkey images, but I was glad to hear the words of a local resident who said, "We're expecting great results".

As ICT students, we have the advantage of being able to do what we want to do, even in our first couple of years.



We took on a challenge with these projects.

Developing an AI system to Prevent Animal Damage for SDGs

Agricultural damage due to monkeys has become a serious problem in many parts of Japan, including areas near Mt. Hakusan. Shuntaro Sato, Koutaro Sugi, and I developed an AI system for preventing animal damage. They had AI learn 7,000 images of Japanese monkeys and developed a system for recognizing monkeys in camera images. In a demonstration carried out at Ishikawa Shinrin Park Zoo, the system was 65% to 80% reliable. We are now trying to improve the accuracy of the system for recognizing monkeys in a natural environment, and develop a system for sending warnings to farm owners' smartphones when a monkey enters their farm.

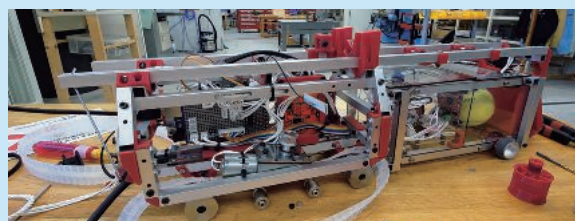


This research won the Grand Prize in the "U-21 Student Research Presentation Meeting" of the Institute of Electrical Engineers of Japan (IEEJ) in 2021.



Taking on a Challenge in the Creative Robot Contest for Decommissioning

I am working after school with a 1st year student to make a robot for the Creative Robot Contest for Decommissioning. It is a contest for robots that collect nuclear fuel debris in nuclear power plants. We are 1st year and 2nd year students, but we could make a robot that was able to accomplish all of the missions in the contest.



Topics

Making an Automatic Alcohol Dispenser with a Microchip Board

There is a danger of coronavirus infection when we touch the pump of an alcohol dispenser. Under a teacher's guidance, students designed a 3D model that uses a servo motor to press the pump automatically, and developed a dispenser that uses an ultrasonic sensor and an Arduino board to detect a human hand. The prototype is now used in offices and common spaces on campus.

