## TOPICS Fukushima 10 Mar. 2014 No.40



## Agency personnel take on student questions Participation in the Fukushima National College of Technology cultural festival

"What is a spark chamber?"

"This device that resembles a water tank is called a spark chamber, and it is filled with helium gas. We can use this to view supernova explosions occurring far away in space, as well as cosmic rays arriving on Earth from flare-ups occurring at the surface of the sun."

"Why is it shining?"

"When cosmic rays from space pass through the Earth's atmosphere, they collide with nuclei in the atmosphere and generate secondary cosmic rays such as neutrinos and electrons. When these particles pass through this spark chamber, it is designed to generate an electrical discharge which causes the light that you can see. What you are seeing is the aftermath of invisible cosmic rays, however these cosmic rays are also passing through all of our bodies."

The students beam with curiosity. The venue, Fukushima National College of Technology located in Iwaki City in Fukushima. Mayu Iwasaki and Miho Suzuki (Ms. Iwasaki is in the photo above) from the Japan Atomic Energy Agency (JAEA) provided support for the college's cultural festival by bringing in a spark chamber and other experimental equipment. There they responded to a plethora of questions raised by curious elementary, junior high and high school students.

Fukushima National College of Technology held their "Banyosai" cultural festival on November

3. The JAEA has entered into a cooperation agreement with the Institute of National Colleges of Technology (Kosen) and participated in the project (booth) of the regional reconstruction support office which aims at developing personnel who can contribute to reconstruction within technical colleges. Displays of various radiation dose measuring devices and experiments outlining radiation in cloud chambers have been conducted.

Two members from JAEA, Ms. Iwasaki and Ms. Suzuki, participated in this event. A team was organized consisting of members from the Fukushima Environmental Safety Center located in Fukushima City and personnel from the Fukushima Reactor Decommissioning Technology Safety Research Center of the Fukushima National College of Technology to help with the event.

There were more than 100 visitors to the booth before lunch on the day of the event. Visitors were from all walks of life, including current students and graduates of the college, junior high school students aiming to enter the college, family members, residents of Iwaki City, as well as personnel from nuclear agencies and the media, and evacuees.

At the booth, the two presented information related to radiation and research on reconstruction in Fukushima using panels prepared by JAEA and the college, and also took on questions raised by visitors. While they faced some challenging questions, the two responded in a way that was well received by visitors. A survey meter, capable of measuring natural radiation, and the device above used to view cosmic rays proved particularly popular. Personnel participated as lecturers during the construction of the cloud chamber planned by the college (**photo**, **bottom**).

Both Ms. Iwasaki and Ms. Suzuki are graduates from the Fukushima National College of Technology, and are currently involved in R&D for reconstruction of Fukushima. Ms. Iwasaki said of the event: "Any matter related to radiation is generally difficult to understand. I think that being



from Fukushima and a graduate of this college myself, as well as being close in age to the visitors, helped me get along great with the local people in addition to the current students and graduates. I stumbled a few times, but I hope I answered their questions properly."



The Fukushima National College of Technology established a special reconstruction training course in the field of nuclear safety, renewable energy and engineering to reduce the effects of disasters, with student numbers increased by five from 2013 to help support local reconstruction efforts in the wake of the Great East Japan Earthquake. The college also runs a variety of community reconstruction support efforts, including a special adult training program, promotion of the renewable energy industry, and support for measuring radiation. JAEA also cooperates with these efforts by running a special adult training program in the field of nuclear safety.