

Regional revitalization/Industry-academia collaboration

In 2004 Akita University became an Incorporated National University. It embraced this opportunity to reaffirm that education, research, and social contributions were the focal points of university management policy. We have been promoting the “open university project” as the hub of public intellect. The root of the university’s social contributions is the belief that one’s education not only takes place as a student, but that it is a lifelong process. Therefore the university should make proactive efforts to provide educational resources to the whole community. This concept acts as the basis for the expansion of various

Regional Cooperation; Social Contribution initiatives

■ Open lectures

Every year open lectures are held on a wide variety of topics. These open lectures act as an excellent educational resource for anyone in the community at large who wishes to engage in lifelong learning.



■ Children’s Observation Day

Every year during summer vacation “Children’s Observation Day” is held for elementary school students and their parents. The purpose is to raise young students’ interest in the university through campus tours, watching experiments in laboratories, viewing the night sky at the campus observatory, and other fun, educational events.



■ Classes on the prevention of sports-related injuries and disabilities for young athletes

These classes use methods such as ultrasonic medical checkups to raise awareness of issues that can give rise to injuries and disabilities when playing sports, and to show how important it is for us to look after our bodies.



The class is aimed at anyone who is involved in sports in the prefecture, such as scout groups or parents and guardians. Using methods such as ultrasound scans, checks are made on players’ bones and muscles, the flexibility of their arms, legs and core, and their technique. Based on this, advice and guidance is given on stretching exercises and on throwing and pitching style and technique.

■ “Medical Science Café Next”

As part of our university-wide social contribution initiatives, we make the University’s knowledge and learning available to local residents in an easy to understand format by inviting lecturers from our different departments to come to give informal lectures that are a product of interdepartmental collaboration. For example, the Head of the Graduate School of Medicine has become a “Science Cafe Master”, giving talks on medicine and health-related topics from a variety of perspectives.

educational activities. Furthermore, we offer programs for high school students and their parents and guardians, as well as for elementary and junior high school students. We have newly established the Center for Regional Development in April 2016, making our university a base for regional learning and regeneration. The Center contributes to the promotion and revitalization of local businesses and to the development of talent which serves the community, through collaborative research and aid initiatives to promote the local economy and prevent regional disasters, and research to support the growth of local industry.

■ Support initiatives: “Voluntary student projects” addressing regional problems and issues

These support activities help spread an awareness and recognition of the features and characteristics of the area. Students work cooperatively in groups as they address regional problems and issues, focusing on the local area.



As more students become involved in the community, our aim is to contribute to the training of human resources to resolve local issues by fostering a community-oriented mindset amongst students.

Local Disaster Prevention

1. Investigation and Research regarding how local disaster prevention should be conducted in accordance with the characteristics of Akita Prefecture

- ① Conduct basic research into regional disaster prevention within Akita Prefecture.
- ② Collect data on past earthquakes along the coast of Akita Prefecture, investigate issues related to disaster prevention issues, and study the ways to mitigate earthquake damage.
- ③ Investigate and research earthquakes and tsunami that may have the potential to inflict enormous damage on Akita Prefecture in the future.

2. Giving instruction on disaster prevention

We conduct disaster education for local government, neighborhood associations and educational institutions, so that, in the event of an earthquake, local residents can put disaster mitigation initiatives in place on their own.



3. Provide instruction and advice to the prefecture and the cities, towns, and villages within it regarding disaster prevention measures

We provide instruction and advice on disaster prevention and mitigation measures to prefectural municipalities, tailored to take into account of Akita Prefecture’s natural characteristics, so they can put earthquake disaster prevention measures in place, as well as predict earthquake damage in the area.



Regional Business Research

■ Resource development and environmental recycling research and development projects

We are developing integrated modern research and educational activities incorporating international contributions on the sustainable utilization of natural resources, including petroleum, gas, minerals and secondary resources, for resource production and processing, purification and recycling of wasted-materials as well as environmental protection.



■ New materials; functional materials research and development projects

We undertake research related to discovering new and advanced materials, based on the results of our core research at Akita University. Realizing our capability as one of the leading research institutes in this area, we aim to develop new businesses and new jobs through collaborative works with universities, companies, and public institutions in Akita.



■ Research and development on new manufacturing technologies and quality assessment technologies for composite materials (Project leader: Mikio Muraoka, Professor of the Graduate School of Engineering Science)

Development of innovative technology for low-cost manufacturing and evaluation of quality for composite materials used in the main structures of aircraft fuselages. With the approval of the Ministry of Economy, Trade and Industry, we established the "Akita New Composite Technology Research Association" in April 2017, with the aim of developing new technologies as part of the regional development project for Akita Prefecture. Development of products in the aircraft field requires time. As well as working with domestic automobile manufacturers to study the application of carbon fiber as a base material in the automobile field as a mid-term exit strategy from the use of traditional materials, in 2020, we developed new methods for repairing aging concrete structures using carbon fiber sheets and magnetic field induction heating, and are also working on applications in the civil engineering field aimed at repairs of public infrastructure.

■ Research and development of small and light-weight electrification systems

As part of the drive for research into the electrification of mobility (transportation machinery such as aircraft and automobiles), a key technology for achieving carbon neutrality by 2050, we are collaborating with a project funded by the Cabinet Office's "2019 Grant for Regional Universities and Regional Industry Revitalization" to contribute to the promotion of local industries. This is the "Industrial creation initiative based on R&D for compact and lightweight electrification systems."

■ New energy research and development project

Akita has an abundant range of renewable energy resources. We are committed to supporting industry through the development of human resources, and are particularly focused on promoting the development of industries using wind power.

■ Medical science and engineering collaborative industry research and development project

In the medical and welfare fields related to the aging population, we develop and promote new equipment and devices with companies mainly based in Akita Prefecture. We are committed to the development of the medical device industry through industry-academia-government partnerships, and have expanded our remit to include the development of equipment for general users to promote healthy living and longevity, as well as medical equipment.

