SDG 6 CLEAN WATER & SANITATION

LEARNING AND STUDENTS

Our Goals

One of our aims is to address the issue of the maintenance and conservation of water resources effectively, and to teach and inculcate in students a culture of communication with nature, to cooperate with all interested parties for creating technologies, methods and programs aimed at saving water resources of Siberia.

INRTU study programs

We teach our future specialists in such majors as Water Supply and Sanitation, Applied Geology, Innovative Technologies in Water Supply and Drainage, Building Systems for Water Protection. The programs allow future specialists to deal with the complex tasks of designing, installing, operating, renovating and researching water supply and drainage systems, including the development of water intake facilities and the preparation of drinking and technical water, building engineering equipment, drainage from populated areas, etc. We are introducing new water treatment techniques in the Irkutsk Region to solve the complex global issue.

RESEARCH

Water Quality Research Laboratory

There are research laboratories and a centre of collective use specializing in the monitoring of natural and technological environments at the University. So the Center for Collective Use "Technosphere Safety" provides research in the direction of technology for monitoring the natural and technogenic environment, the Water Quality Research Laboratory conducts independent, accurate and objective monitoring, including a single determination of the quality of drinking, natural and waste water in Irkutsk and in the Irkutsk Region.

51 publications indexed in Scopus

Environmental monitoring of Lake Baikal

The University supports research on aquatic ecosystems. Since 2019, the project on Development of technology and tools for robotic environmental monitoring of Lake Baikal has been implemented with the funds of the higher education institutions. During the project, the authors are conducting joint field researches with representatives of the research community, such as the Limnological Institute SO RAS and the Joint Nuclear Research Institute.

INRTU consumes **1-25%** of the purified water

Water and Life

All-Russian Science and Practice Conference "Water and Life" is held annually at the university. It allows students and researchers to exchange experience and discuss new directions in the study of aquatic ecosystems, drinking water and sewage treatment. Discussions are held in four sections, including "Water in technological processes", "Water ecology", "Water in natural sciences and minerals".
At the Department of Engineering Communications and Life Support Systems, there is research in the laboratory. The laboratory is equipped with a complex of state-of-the-art instruments, which make it possible to carry out normal and high-precision investigations of drinking, mineral, natural and wastewater and waste from production, soils, etc.
The laboratory is accredited by the Accreditation System. INRTU scientists have developed a concept for water disposal in the central ecological zone (CEZ) of Lake Baikal on behalf of the Governor of the Irkutsk region. The plan of measures for wastewater disposal proposed by the "Polytech staff" applies to the western and southern parts of Baikal. It is designed for the period up to 2030

PUBLIC ENGAGEMENT

First Deputy Government of the Irkutsk Region Visit

In 2020, the First Deputy Government of the Irkutsk Region visited INRTU. He became acquainted with scientific achievements and developments of the research laboratory for environmental monitoring of natural and technological environments.

OPERATIONS

Water Treatment and Water Supply System

We do waste-water treatment indirectly, through the city company MUE Vodokanal that is responsible for water quality. INRTU has a sewage acceptance contract with this company. The mission of the company is to provide drinking water and canalization services to the city's residents and other consumers. MUE Vodokanal produces, transports and sells drinking water, controls the quality and quantity of production wastewater, as well as the quality of pre-treatment at local facilities.

Clean Drinking Water and Water conservation

Drinking fountains install at the University. Filter cartridges are replaced based on water consumption. During the capital repairs of buildings, mixers are gradually replaced with water-saving analogues. It helps to reduce water consumption.

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