



LEARNING AND STUDENTS

Study programs

INRTU has various undergraduate and postgraduate programs aimed at solving the problem of climate change by transforming traditional sectors of the economy and developing green technologies and equipment. Such programs include [Environmental Science Engineering](#) (Bs), [Environmental Protection and Resource Conservation](#) (Bs), Innovative technologies in heat supply and ventilation (Bs), Innovative technologies in water supply and sanitation (BS), and many others. In 2023 INRTU launched a double degree Master program in Ecology and Green Technologies with Harbin Institute of Technology (HIT), one of the top universities in China. Students will study for 1 year at INRTU and 2 years -at HIT and will be awarded with diplomas from both universities.

Raising awareness

Each year INRTU organizes events to raise students and schoolchildren's awareness of the need to tackle environmental problems of the region. In 2023 the University hosted the [XIII All-Russian Scientific and Practical Conference](#) on Technosphere Safety in the XXI Century, highlighting the antibiotic contamination of the aquatic environment, the pollution consequences and problem-solving ways.

At the 2023 International Forum of Civic Participation [#MYVMESTE](#) the INRTU team presented the Baikal Without Plastic scientific volunteering project to be supervised by INRTU Scientific Volunteer Point.



RESEARCH

8 publications on SDG 13
in Scopus in 2023

PUBLIC ENGAGEMENT

Making difference

INRTU academics contribute to solving regional environmental problems and work on development of different green technologies for local enterprises to reduce ecological impact.

The Scientific and Educational Center "Baikal"

INRTU is an active participant of World-class interregional scientific and educational center "Baikal". The Baikal Center is focused on the application of "green" technologies and environmental safety including deep processing of industrial waste, integrated wood processing to tackle global environmental agenda. In 2023, within implementation of the project of Center "Baikal", INRTU Laboratory for the development of efficient building materials received equipment for the study and development of building materials from anthropogenic wastes. Since Irkutsk region is notorious for having large accumulations of ash and slag, with negatively affects the environment, the laboratory strives to find a rational use for industrial waste.



INRTU hold over 120 events
related to sustainable
development and ecology
for last 3 years

Net zero plan

The University carries out numerous research projects for governmental agencies and core enterprises aimed at protecting the environment and developing green technologies. In 2023 INRTU Siberian School of Geosciences (SSG) conducted large-scale geological, geochemical and geo-ecological [researches in the Magadan Region](#). By order of the Polyus Company, INRTU students performed prospecting works on the possibility of detecting gold mineralization by geological and geochemical sampling methods, and also assessed the environmental status by sampling soil, water and ground.



The research results will help to assess the environmental baseline condition and establish the variability ranges of chemical element concentrations in natural objects, including water bodies. The university conducts large-scale proactive geo-ecological research in the interests of the government, local authorities and the scientific community. Since 2023 INRTU Siberian School of Geosciences has an accredited mobile chemical and analytical laboratory which allows to conduct express research of rocks, ores, soils, soil and sewage sludge in areas that are difficult to access and remote from the existing infrastructure. Since geological exploration must evaluate environmental risks, this high-quality rapid analytics is greatly valued by industrial partners.



Students' input

Students of INRTU School of Aircraft Engineering and Transport have developed [a robotic boat for collecting garbage](#) on water bodies. The students presented the project to the experts of the UMNiK program of the Innovation Promotion Foundation in 2023.

OPERATIONS

Green Technologies for Industry

The University has developed [an action plan to achieve zero carbon emissions](#) for 2020-2050. It is planned to reduce direct greenhouse gas emissions that are generated from sources owned or controlled by the university by 2030. Reduction of indirect greenhouse gas emissions associated with the production of electricity, heat or steam purchased by the university will be achieved by



Environmental control

The University [implements Industrial environmental control program](#), aimed at higher energy efficiency, waste utilization, reduction of traffic footprint and creation of environmentally friendly infrastructure of the university campus.

