

Results of BSUIR participation in the HI-TECH 2026 International Exhibition of Innovations

The HI-TECH 2026 International Exhibition of High Technologies and Innovations in the scientific and technical field was held on April 14–16 in St. Petersburg, Russian Federation.

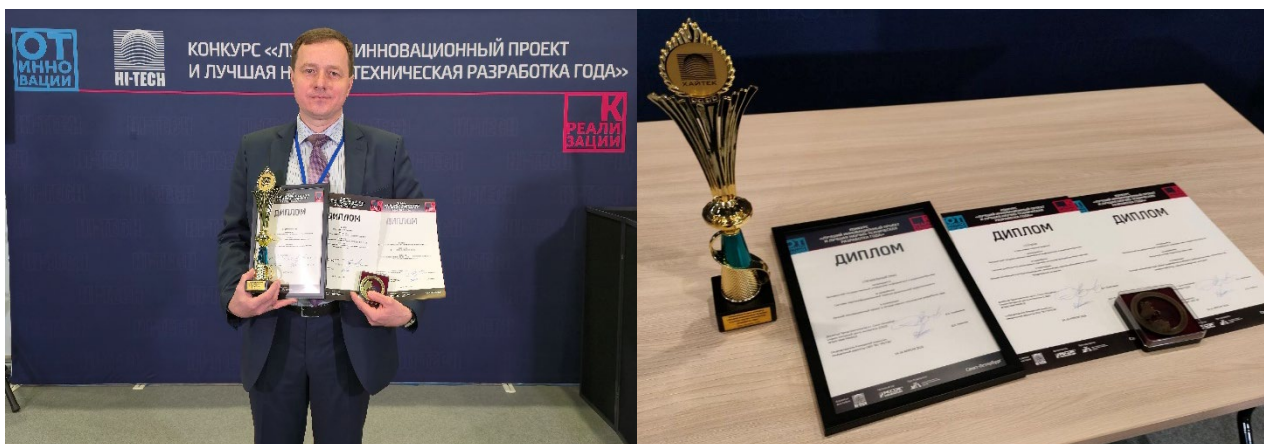
The exhibition is the largest event in Russia in the field of high technologies, innovations and investment projects in the scientific and technical sphere (held since 1996).

BSUIR presented the following developments at the exhibition:

- continuous glucose monitoring system;
- device for generation of cold atmospheric plasma and control of its interaction with surface;
- system of monitoring and patient-specific therapy for respiratory failure;
- high-frequency cavitation indicator.



Within the framework of the exhibition, the traditional “Best Innovative Project and Best Scientific and Technical Development of the Year” contest was held. This year, BSUIR presented three developments at the contest.



A special prize in the nomination “Best innovative project and best scientific and technical development of the year” was awarded to the system of monitoring and patient-specific therapy for respiratory failure. Developer: Oleg Zelmanski, PhD in Technical Sciences, Associate Professor, Associate Professor of the Department of Information Security of BSUIR.

- ✓ Novelty of the development: automated patient-specific selection of oxygen therapy parameters and their correction through real-time feedback.

More about the development

A First Degree Diploma and a gold medal in the nomination “The best innovation in import substitution, localization, import advancement, successful market promotion” were awarded to the continuous glucose monitoring system. Developers: research team led by Anatoly Osipov, PhD in Technical Sciences, Associate Professor, Head of the R&D Lab. “Medical-purpose devices, systems and technologies” of the BSUIR Center for interdisciplinary research, and the team of the Production Unitary Enterprise “FreBor” (Borisov, Belarus).

- ✓ Novelty of the development: original fluorescence-based glucose sensor and fundamentally new methods for glycaemia data acquisition and processing are used.

More about the development

BSUIR was also awarded a diploma in the nomination “The best innovative project (development) in the field of instrumentation, national element base, measuring and control equipment” for the high-frequency cavitation indicator. Developer: team of the R&D Lab. “Ultrasonic technologies and facilities” led by Nikolai Dezhkunov, PhD in Technical Sciences, Associate Professor.

- ✓ Novelty of the development: USB interface for data exchange with a PC and real-time visualization of measurement results; wide set of cavitation noise metrics.

- ✓ Application areas: scientific research (study of cavitation processes, development of ultrasonic technologies); industry (ultrasonic cleaning of parts); biology and medicine (study of ultrasonic effects on cells); chemistry and sonochemistry (intensification of chemical reactions).

[More about the developer](#)

