Belarusian State University
of Informatics and Radioelectronics

R&D Department

Announcement of BSUIR participation at the exhibition of the IX Belarusian Space Congress

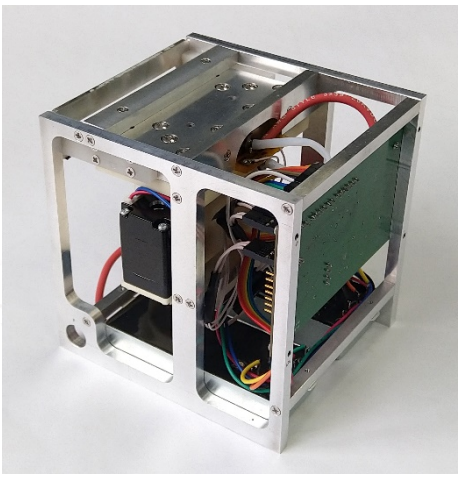
October 21 – 23, 2025
The United Institute of Informatics Problems
of the National Academy of Sciences of Belarus
6 Surganova str., Minsk, Belarus

Topics of the congress:

- Innovative programs, projects and technologies in the rocket and Space industry. Using the results of Space programs for the benefit of various sectors of the economy.
- Spacecrafts, target and scientific equipment. Navigation and time support systems, satellite communications and broadcasting.
- Tools, technologies and methods for processing and displaying Earth remote sensing data, geoservices. Artificial intelligence in Space technology.
- Technologies for education and training for Space industry.
- Thermo-physical aspects of practical astronautics, promising materials, elements and devices for Space technology.
- Space research in the field of biology, physiology and medicine.

As part of the congress, there will be an exhibition of scientific and technical products to be applied in aerospace, where BSUIR will present the following developments.

Miniature matrix reactive and electrostatic jet engines are designed to move, manoeuvre and maintain the altitude of small CubeSat spacecraft (3–9U) in low Earth orbit.



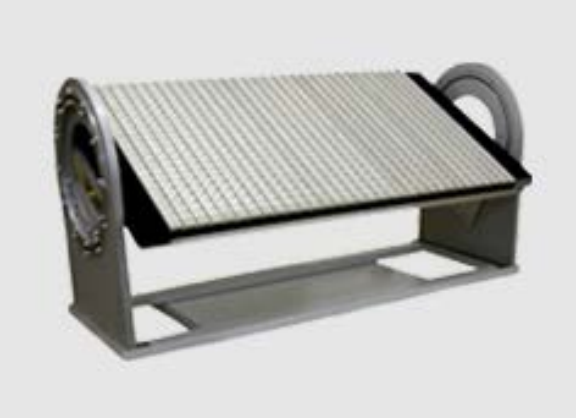
Advantages of a miniature jet engine:

- The use of microelectromechanical systems technology for manufacturing the emitter of a miniature engine – its most important part, responsible for generating thrust, which simplifies its design and manufacturing process.
- The use of ionic liquid as fuel makes it possible to reduce the operating temperature of the device compared to analogues operating on liquid metals and to reduce the energy consumption of the engine thermostabilisation system.

About the developer

Basic panel (fragment) of the APAA of the experimental space-based X-band synthetic aperture radar

Advantages



- Polarization: vertical, horizontal.
- Self-diagnostics.
- Possibility to update software distantly.
- Control and compensation of temperature influence on the microwave tract parameters.
- Compact size and assemblability.

About the developer