



**Belarusian State University
of Informatics and Radioelectronics**

R&D Department

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Announcement

2d Interregional Specialized Forum on Smartification of the Real Sector of Economy Smart Industry Expo

November 10 – December 10, 2021

The exposition part of the forum will be held in an online format.
The business program will be held in a hybrid format.

Innovation Center for the Commercialization of R&D Achievements,
Minsk region, Smolevichi district,
Chinese-Belarusian Industrial Park "Great Stone",
Pekinskiy Ave., 20

About forum

The Forum includes an international exhibition of suppliers of digital technologies and solutions for the development of smart manufacturing (Smart Industry) and the concept of a smart city (Smart City), as well as innovation centers supporting the development of technology startups and digital transformation projects of enterprises in the real sector of the economy.

A three-day business program with topics is planned within the framework of the Forum:

Smart Industry Vision: integrated approaches to digital transformation projects for the formation of value chains in a smart enterprise;

Investments in the intellectual industry: Corporations, SMEs, startups: investments in the Intellectual industry;

Smart Exchange of projects in the areas of Smart industry. Smart city.

Technologies:

- Digital design and modeling
- Additive and hybrid technologies
- Big data

- Industrial robots, robotic process automation
- Sensors
- Industrial Internet of Things
- Enterprise management systems
- Augmented and virtual reality
- Cloud solutions
- Blockchain

Industries:

- Machinebuilding
- Smart City
- Energy
- Chemistry, oil & gas
- Pharmaceuticals
- Agriculture
- Food & beverages
- Logistics
- Banking sector for industry

BSUIR will showcase youth innovative developments:

1. Children's learning portal on the basics of life safety

The portal is designed to attract the attention of children and their parents to the problem of handling the fire and the deaths of children in the fires, reduce the number of emergency situations involving children and ensure their general security (home, street, vacation, pond, etc.).

It is a responsive and cross-platform website with educational content, the quest rooms and test tasks.

Advantages: a game form of education for children 6-14 years old; an adaptive format for any mobile device with Internet access.

2. Monitoring and remote control system based on the MQTT protocol

Allows you to control the concentration of harmful gases in the air, the humidity level in the room, automatically ventilate the room.

It can be used for monitoring and control of the microclimate in an apartment or house, in computing centers or mining farms, in a greenhouse or in a warehouse.

Advantages:

- cheaper than existing analogues;
- the ability to build a system for specific customer requirements;
- ability to adjust the watering and airing schedule automatically;
- reliable waterproofing;
- installation of sensors in any room;
- security of personal data.

3. The use of WEB technologies and machine learning to prevent the development of malignant neoplasms of the skin (Skincancerstop)

Adaptive web application for early detection of malignant neoplasms (melanoma). Diagnosis of melanoma is based on a photograph of a mole.

The program is based on the neural network training technology, which is able to distinguish a normal state from a disease from a photo and give the result in the form of a percentage probability of the disease.

Advantages:

- intuitive user-friendly application;
- the neural network is trained on data with a total weight of 100 GB, which ensures a low probability of error during diagnostics;
- the diagnostic process takes no more than 1 minute;
- the diagnostic result is displayed on the application screen.