Children's engineering center of the SCHOOL-TECHNOPARK («Kudrovo» Education Centre)

The school's mission: engineering education "from school" on the basis of SCHOOL-UNIVERSITY-ENTERPRISE

Opening date: September 1, 2016

«Kudrovo» Educational Centre is the largest educational institution in the north-west of the Russian Federation. Today, 2,967 children from grades 1 to 11 are enrolled, including the pre-school department for 313 pupils; 90 classes and 13 pre-school groups have been formed; there are 168 teachers, including 6 PhD...
TOPONYMY OF SCHOOL SPACES

STREET OF SCIENTIFIC LABORATORIES, LADDER OF SUCCESS

Sports spaces

INTERACTIVE MUSEUM OF THE DEVELOPMENT OF SCIENCE AND MODERN TECHNOLOGIES
"RUSSIA in scientific and technological progress: from a glorious past to a confident future"
“KUDROVO” EDUCATIONAL CENTRE. TIME FEED. Innovative

2016-2019 - Regional network resource center for the development of education in the Leningrad region

2017 - ... - Regional training center for "Yuniorprofi" competencies "Mobile robotics" and "Internet of things"

2019 - ... - Children's engineering center "AUTOPROM" NORTH-WEST»
Results of the project "Regional network resource centre for the development of education in the Leningrad region: “Kudrovo” Educational Centre as “School-Technopark" in 2018-2019”

- there are 18 educational institutions of the Leningrad region in the network interaction
- the number of school students using the resource of Regional centre for individual development in the scientific and technical sphere: up to 1500 people annually

Our achievements:

- V national championship of Russia "Professionals of the future": Leningrad region team won gold medals in the competence "Internet of things" in the age category 14+;
- The Internet of things project of Vsevolozhsky district won in the "Technological strartup" category at the «Profstart competition»;
- III regional championship «Juniorprofi»: in the competence "Internet of things", category 10+ - winners; "Mobile robotics" – prizers;
- XI All-Russian technology festival PROFEST Moscow, competence "Internet of things" - III place;
- qualifying stage of the regional round of the All-Russian 3D technology Olympiad - "10+" - I place, " 14+" - I place
“Kudrovo” Educational Centre is the basic ground for:

- **regional** stage of the All-Russian competition "I give my Heart to children" for teachers of additional education from 13 districts of the Leningrad region
- ROBOFESTIVAL of the Leningrad region "Zanevsky-2019" (75 participants from 47 cities)
- **regional** stage of All-Russian Olympiad on the subject "Technology" (11 participants)
- Saint Petersburg Electrotechnical University "LETI" events within the framework of the **regional** project "School-Technopark", including annually: training camps (about 200 participants), online conferences (about 500 participants), HACKATHONS (about 200 participants), "LETI DAY" (about 50 participants), workshops in the laboratories of the «Technopark» (68 participants from 18 districts of Leningrad region), solving technical cases (about 180 people)
CHILDREN'S ENGINEERING CENTER "AUTOMOBILE INDUSTRY NORTH-WEST» CONCEPT

Project Road Map

- creation of the **HIGH-TECH SHOP** on the basis of Kudrovo Educational Centre;
- creation of the **circuit** by bringing the resources of the areas of partner organizations;
- **attracting engineering and technical specialists** of specialized enterprises to work with students and schoolchildren;
- creation and implementation of **educational programs** in the areas of activity of the Children's engineering center "Autoprom North-West»;
- preparation of **teams and their participation** in competitions of various levels in the areas of activity of the center;
- ensuring the **personnel needs of the region** through the implementation of the concept of the Children's engineering center "Autoprom North-West" in the context of interaction between the school - institutions of professional education and the enterprise.
TASKS OF LABORATORIES OF THE HIGH-TECH WORKSHOP OF THE CHILDREN'S ENGINEERING CENTER "KUDROVO" TO CREATE AN ELECTRIC CAR

- Laboratory of nanotechnology and microelectronics
- Ecology
- Car body
- Laboratory of 3-D prototyping
- Wheels
- Laboratory of Geologic information systems and ecology
- Laboratory of Bionics
- Control system
- Laboratory of Robotics
- Internet of things Laboratory
- Infocommunication Technology Laboratory
- Mechanism
- Electronic component
Technopark is included in the educational environment of the school:

- The operation and development of **seven laboratories of the Technopark** is provided in the normal mode;
- The amount of students of the “Kudrovo” Educational Centre engaged in scientific and technical creativity in 2018 on average at school - **16, 8%** (the national average is **12.0%**)

INFOCOMMUNICATION TECHNOLOGIES cover the space from communication tools to global information security challenges
SPACES OF THE HIGH-TECH WORKSHOP OF THE CHILDREN'S ENGINEERING CENTER OF THE TECHNOPARK LABORATORY ZONE

ROBOTICS creates automatic programmable devices-robots

NANOTECHNOLOGY AND MICROELECTRONICS discover the laws invisible to the human eye nanoworld
SPACES OF THE HIGH-TECH WORKSHOP OF THE CHILDREN'S ENGINEERING CENTER OF THE TECHNOPARK LABORATORY ZONE

ENGINEERING MODELING and 3D PROTOTYPING is the development of creative abilities and early professional self-determination during the development of three-dimensional modeling objects.

The INTERNET of THINGS is a highly intelligent gadget in the service of a person.

INTERNET ВЕЩЕЙ – ЭТО ВЫСОКОИНТЕЛЛЕКТУАЛЬНЫЕ ГАДЖЕТЫ НА СЛУЖБЕ У ЧЕЛОВЕКА

1. Learn what a microcontroller is, what resistors are, how to make a model board.
2. Learn to use LEDs and piezoelectricity.
3. Project: "Intelligent Builder", "Intelligent Portfolio", "Intelligent Home for Grandpa"...
SPACES OF THE HIGH-TECH WORKSHOP OF THE CHILDREN'S ENGINEERING CENTER OF THE TECHNOPARK LABORATORY ZONE

ECOLOGY provides the knowledge that will save life on our planet.

BIONICS: learning the secrets of nature will lead you to the world of technological progress.
HIGH-TECH WORKSHOP SPACES OF THE CHILDREN'S ENGINEERING CENTER DESIGN SECTORS

«Table of Master» in the Interactive museum

CNC machines of the "Junior" series in the "Young machine Builder" educational complex

carpenter's and locksmith's workshops
SPACES OF THE HIGH-TECH WORKSHOP OF THE CHILDREN'S ENGINEERING CENTER

coworking zones

TECHO-ART STUDIO

EXHIBITION SPACES FOR READY-MADE PROJECTS
СОДЕРЖАНИЕ

НЕПРЕРЫВНЫЙ ПРОЦЕСС ОБУЧЕНИЯ В ШКОЛЕ ВОЗРАСТНЫХ СТУПЕНИЙ

ИНТЕГРАЦИЯ ТЕХНОЛОГИЙ

ИНТЕГРАЦИЯ СОДЕРЖАНИЯ

PARTNERS and PARTNER PLATFORMS

COMMITTEE of GENERAL and PROFESSIONAL EDUCATION of the Leningrad region

Saint Petersburg Electrotechnical University "LETI"

18 Educational Institutions of the Leningrad Region-Network Partners

Centre of children's (youth) creativity of Vsevolozhsky district

"THE AUTO INDUSTRY NORTHWEST"

Research and production association "POISK" (Murino)

Russian production Association "UNIMATIC" (Ykaterinburg)

Leningrad regional Institute of education development

REGIONAL CENTER FOR IDENTIFICATION AND SUPPORT OF GIFTED CHILDREN

Saint Petersburg University of railway engineering

Saint Petersburg state University-Art and Industrial Academy

National research UNIVERSITY "Higher school of Economics"
We are open for cooperation!

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