



MOSCOW REGION UNIVERSITY OF TECHNOLOGY «MGOTU»



**MGOTU - DEVELOPMENT PRIORITIES
FOR INTERNATIONAL SCIENTIFIC AND
EDUCATIONAL COOPERATION**





General Information

EDUCATION

- More than 5000 students
- Specialities of higher education - 26 (baccalaureate - 14 ; specialty - 2 ; magistracy - 10)
- Specialities of professional education (vocational education) - 15
- Faculties - 6 (Departments -24)

SCIENTIFIC POTENTIAL

- Postgraduate scientific specialities – 12
- Departments in cooperation with mainstay city enterprises – 12
- Scientific Laboratories – 6
- Engineering Center «High temperature composite materials»
- scientific journals -3
- joint small innovative enterprises - 2

CAMPUS

- Total area – 42576 sq. meters.
- Hostel – 320 places
- Computer classes – 23
- Modern computers – 670
- multimedia classes - 41
- Internet electronic-library system
- International students - 390

EMPLOYEES

- Total employees – 466
- Professors – 279
- Having a degree – 83%
- Research staff - 20
- Scientific workers-lecturers from industrial enterprise - 57

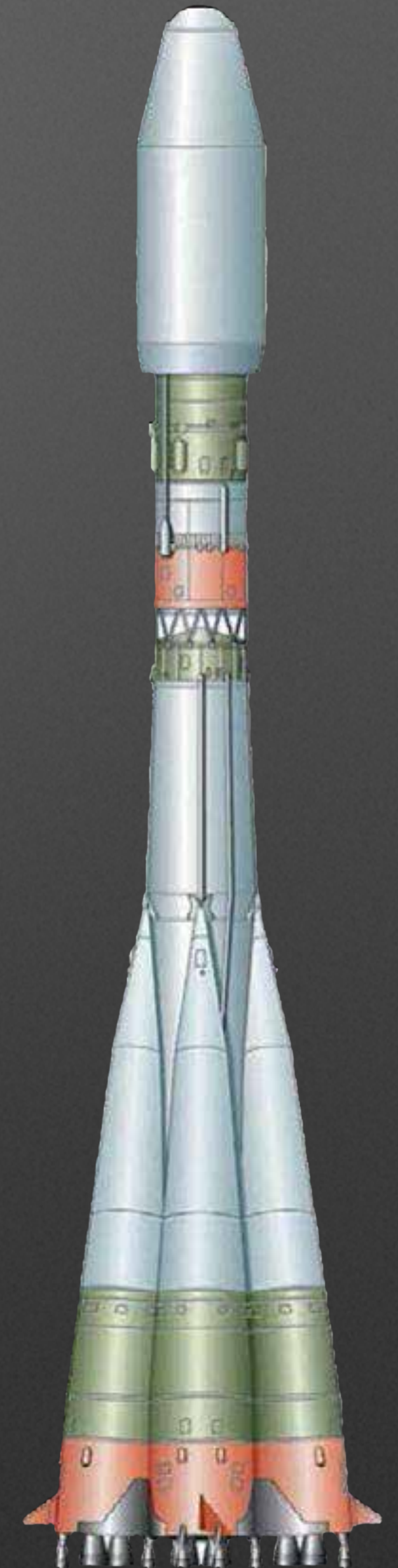
EDUCATION BUILDINGS



HOSTEL



NEW BUILDING





Location

«The University of Technology» («MGOTU») are located in Korolyov.

- Korolyov is an industrial and science city in Moscow region, Russia, well known as the cradle of Russian space exploration. Population: 183,402
- Mission Control Center is located in Korolyov, as well as most of the leading enterprises of the space industry
- Korolyov hosts the International Space Olympics, an annual competition for young people, to promote space related research.





TRAINING ENGINEERS

INFORMATION AND TECHNOLOGY FACULTY

bachelors

information security

technical system management

information system and technology

applied mathematics

quality management

innovation

specialists

design, manufacture and operation of rockets and space complex

magisters

information security

applied informatics

quality management

postgraduates

system analysis, information control and processing

foundations of information science

standardization and quality management

mechanical engineering



Information and Technology Faculty



University Chair :

Information Technologies and Control Systems

Information Security

Mathematics and Science Education

Engineering and Technologies

Quality and Standardization Management

Enterprise Department:

Rocket Technology/ Institute of Mechanical Engineering (Moscow)

Information technology of missile telemetry /NPO "Measuring equipment" (Korolev)

Management and information technology in space systems /NII Space systems under the name of A.Maksimov (Korolev)

Quality management and research in the field of new materials and technologies/ JSC "Kompozit" (Korolev)

Rocket engine/ Isaev Chemical Design Engineering Bureau (Korolev)

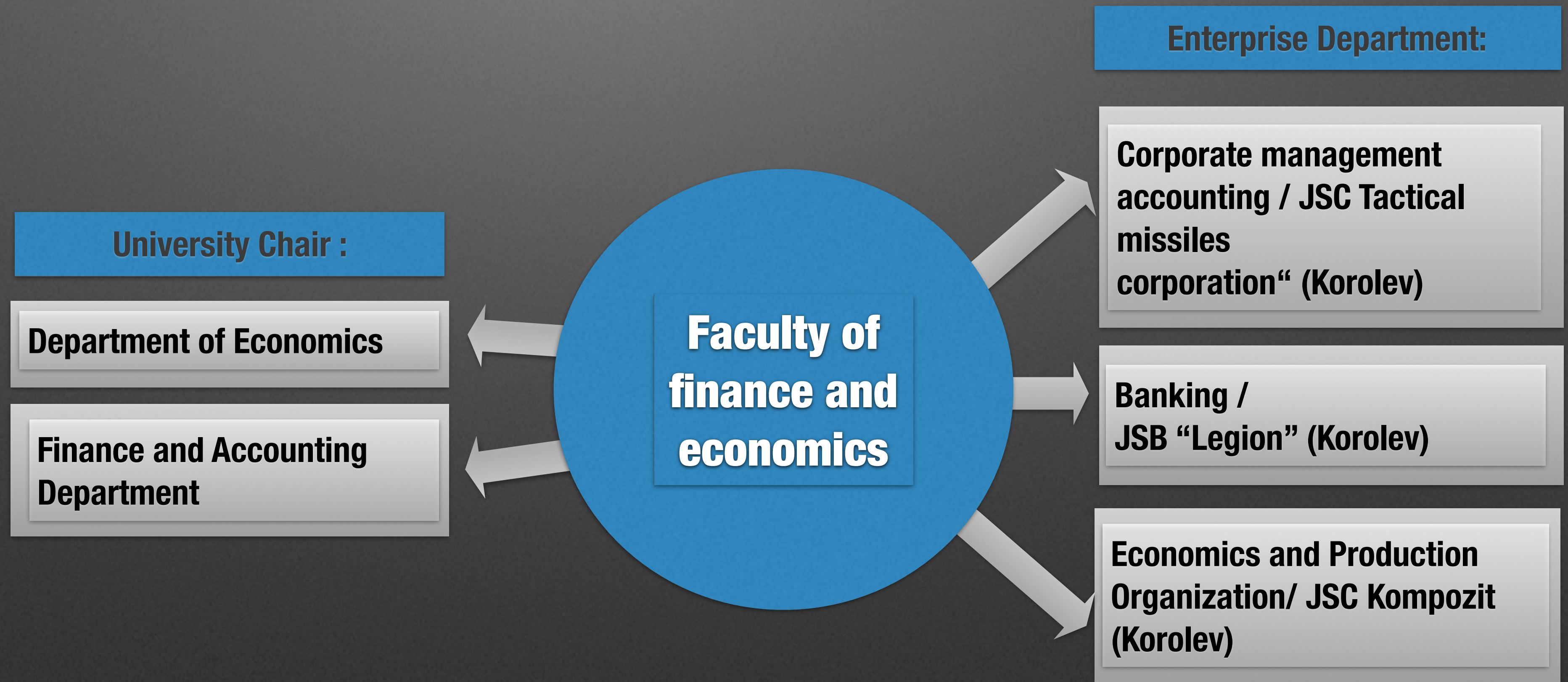
Information systems and technologies of designing, production and management/ Tactical Missiles Corporation (Korolev)

Metrological product quality/ Main Metrological Center of Ministry of Defense (Mytischy)

Information and Technology Faculty



Faculty of finance and economics

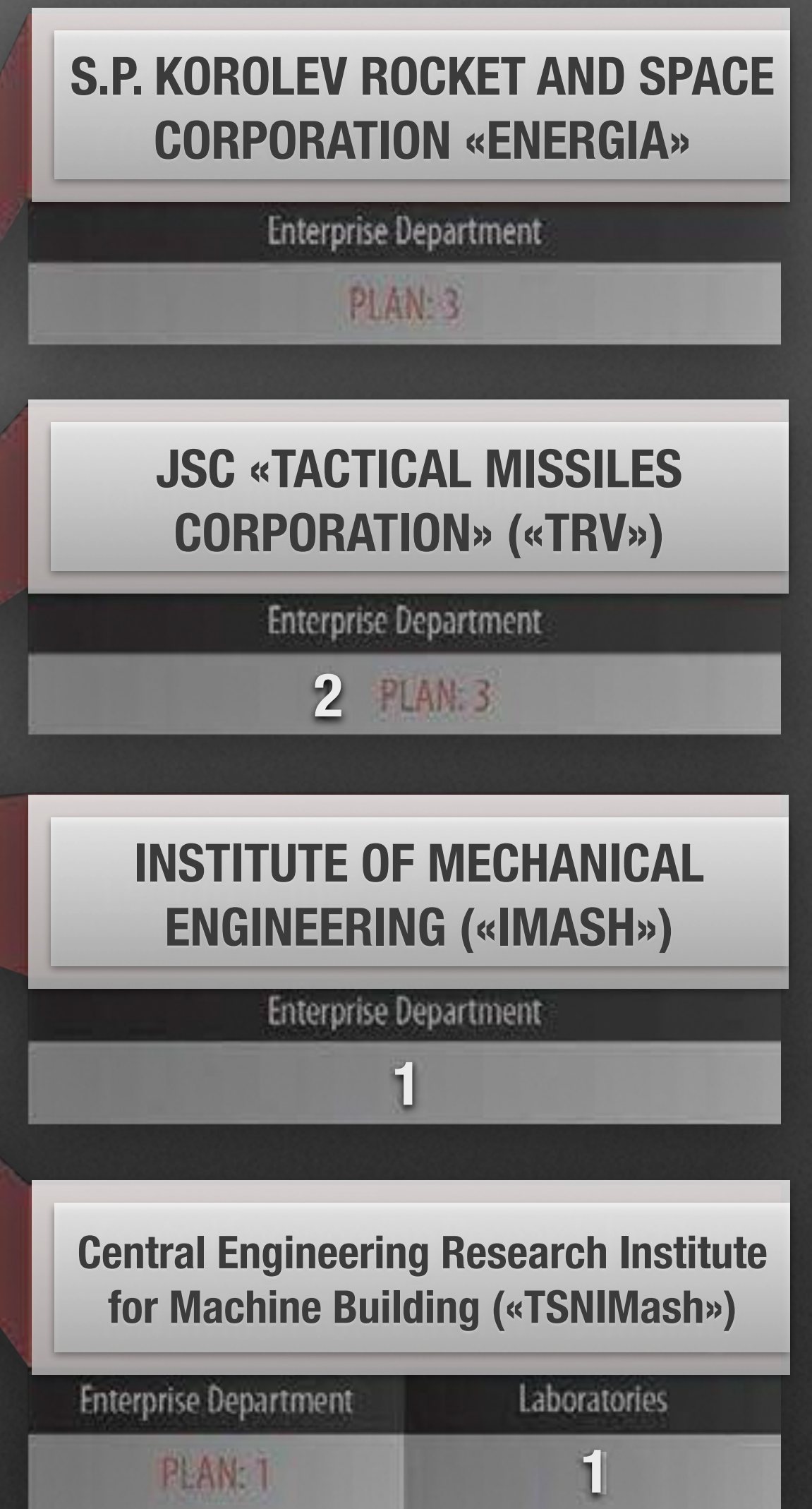
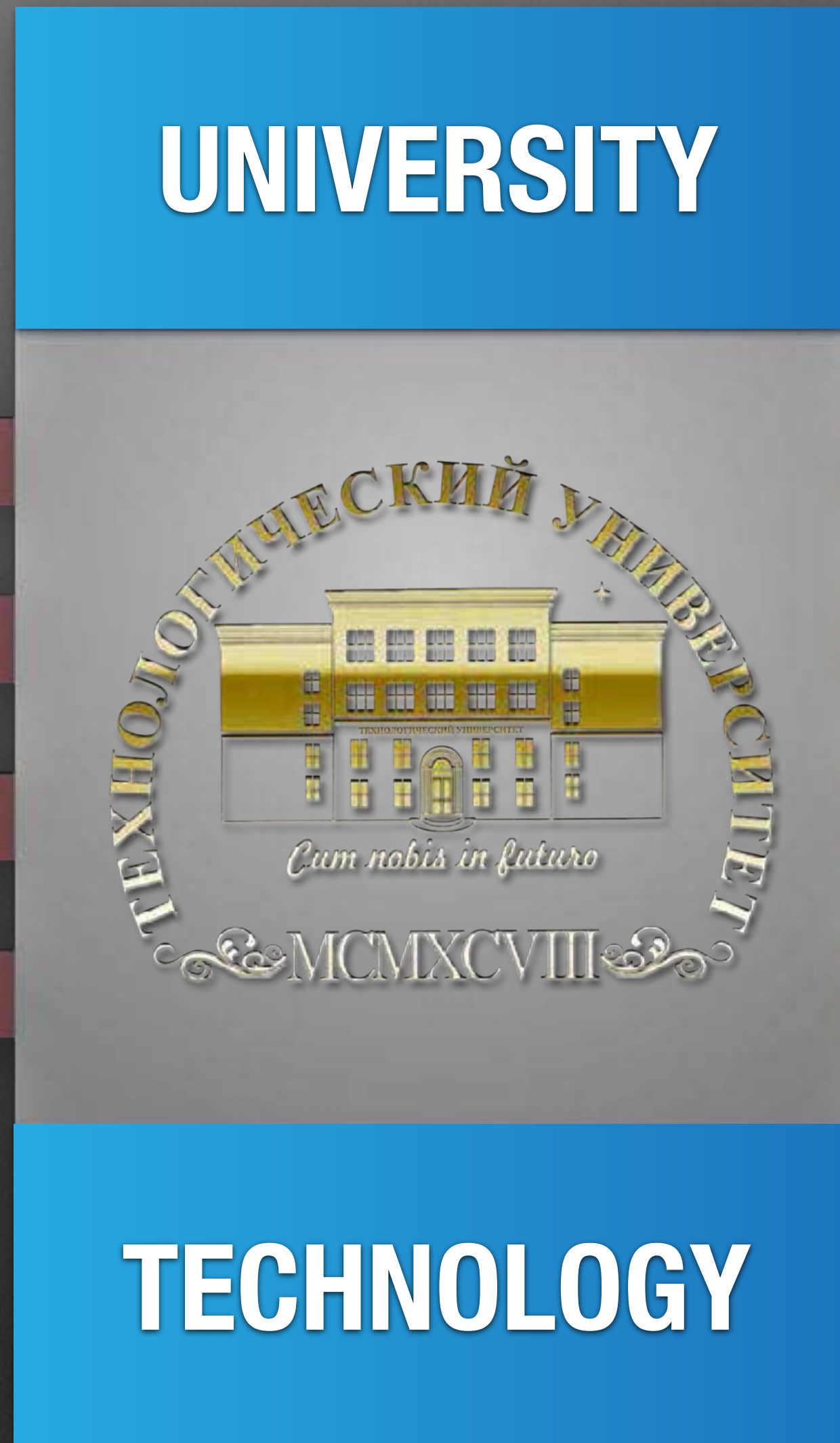
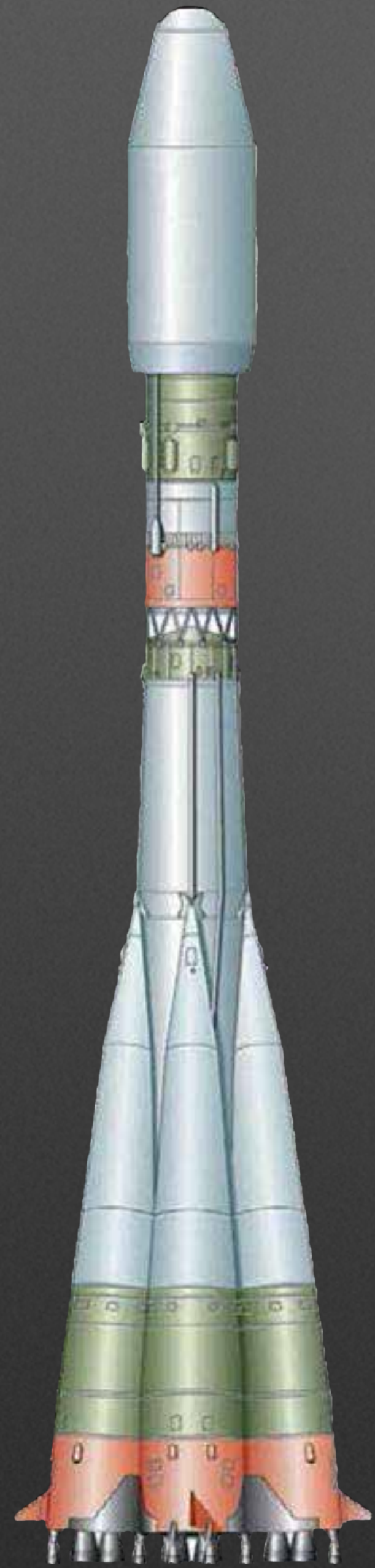




Social - Humanities Faculty



Cooperation with mainstay city enterprises





Department «Quality management and Research on New Materials and Technologies»



JSC "Composite" - Materials Research leading enterprise of the Federal Space Agency.
Performs research and technological development work on the creation and comprehensive study of the properties of materials.

RESEARCH AND EDUCATION PRIORITIES:

The head of department – professor Timofeev A. N., Vice CEO JSC «Komposit», Academician of the Russian Academy of Cosmonautics by KE Tsiolkovsky , Ph.D

Mission: "Training for innovation in the field of new materials and technologies ."

The main research areas:

- Development of new composite materials for national security and civil proceedings
- Development of new coating technologies
- Development of materials and designs for farms and mirrors in space.

Special subjects:

- Mechanical and physical properties of materials
- Theory and technology of production, processing and recycling of materials and coatings
- Test methods for composite structures
- Theory of the structure of materials
- Modeling and optimization of materials and processes

Engineering Center «High temperature composite materials»

- PIP, CVI, RMI technologies
- 3D printing
- microscopy
- porometry
- gas-phase deposition



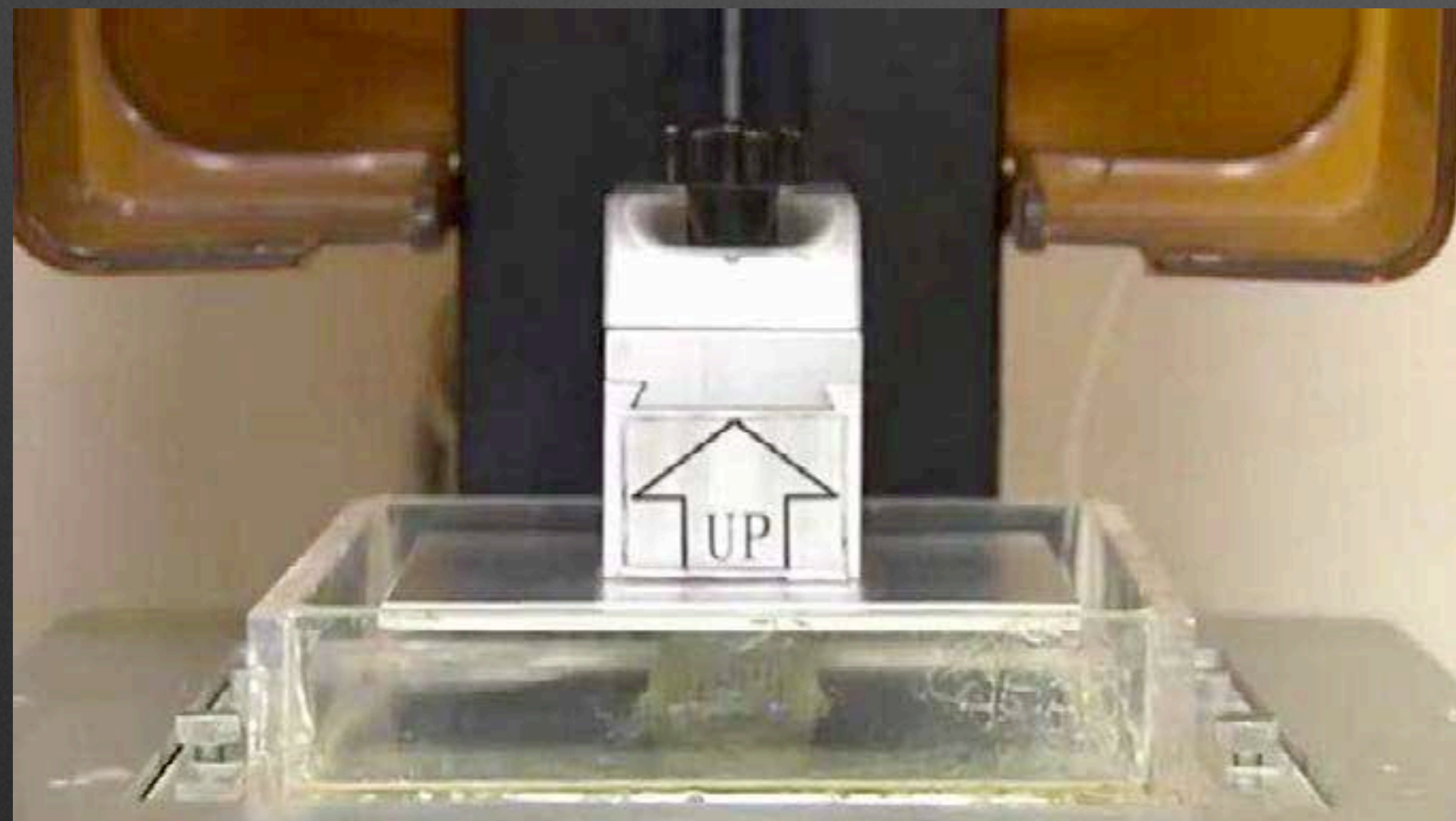
Joint JSC «Kompozit» laboratories

Engineering Center «High temperature composite materials»

1. Laboratory heterogeneous synthesis of advanced materials

Laboratory equipment :

- CNC Machine BZT PFE 500 PX, asher EKPS 50 Microscope Altami UCMOS14000KPA, Portable combined hardness, porosimeter; Academic software license ACE + modeling of physical processes
- Press APVM-904/63-600-600-2, 3D laser scanner Faro Focus 3D-20
- High temperature injection molding machine (thermoplast)
- Gase-phase deposition scientific school
- pressure impregnation machine



2. Joint Small Innovative Enterprise

- Gas-phase deposition of silicon carbide (hafnium carbide, boron nitride etc)

3. Laboratory of new methods of forming the shaping skeletons

- Braiding machine (Russian analogue Herzog RF 1/144-100)
- installation for automatic cutting
- 3D weaving machine
- automatic carbon skeleton compiler

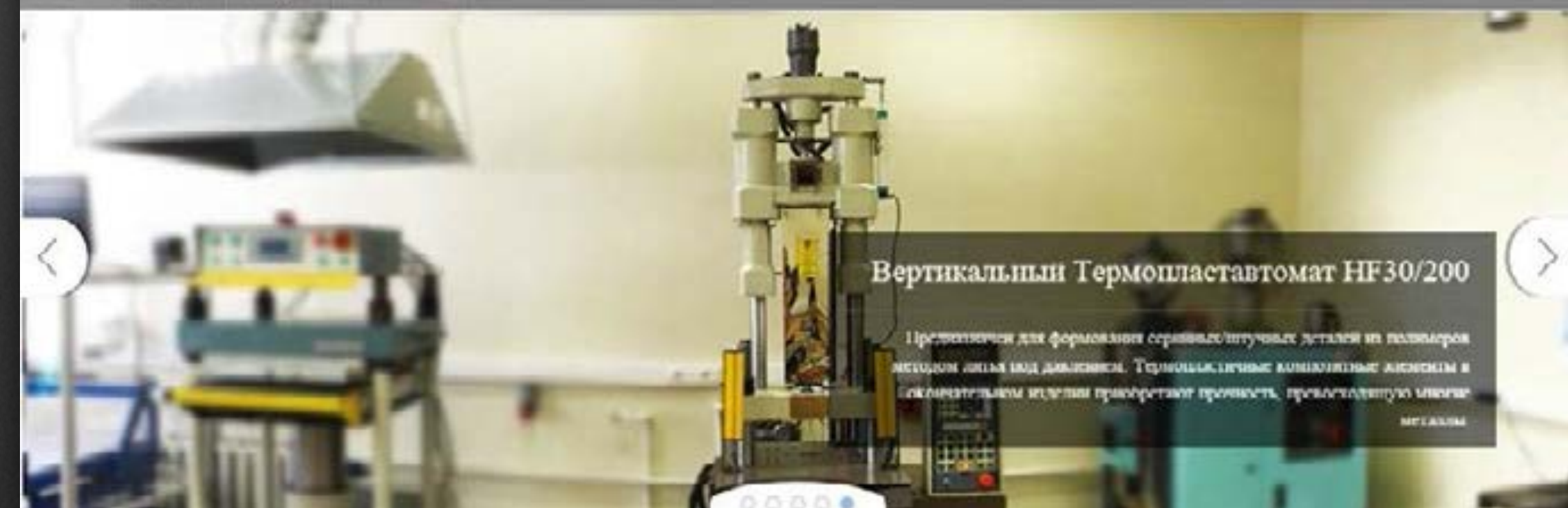


Лаборатория гетерогенного синтеза перспективных материалов



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(Техникум технологий и дизайна)

Главная О нас Услуги Контакты

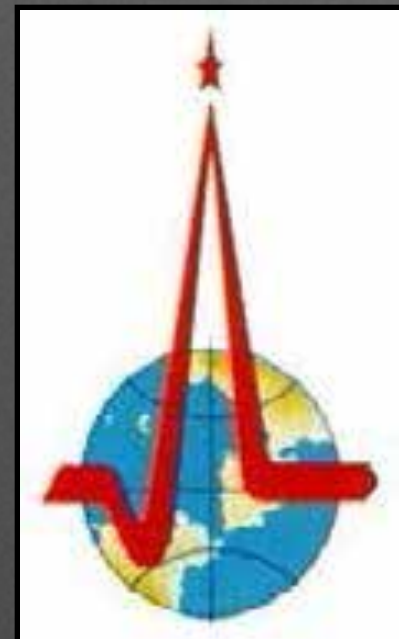


Вертикальный Термопластавтомат HF30/200

Предназначен для формования сервоисполняемых деталей из полимеров методом горячего литья под давлением. Термостатические комбинированные системы в сочетании с системой автоматического контроля температуры, позволяют получать изделия из металлов.



Department «Information technology of missile telemetry»



NPO IT - leading center of the telemetry and sensor equipment, microelectronics for rocket and space technology in the field of measuring instruments, remote sensing

RESEARCH AND EDUCATION PRIORITIES:

The head of department - CEO, Chief designer of NPO «Measuring equipment» prof. Artemyev Y. V.

Special subjects:

- **Designing Sensor-transformative telemetry equipment**
- **Theoretical bases of designing telemetry antennas**
- **Standards of modern telemetry**
- **Fundamentals of the theory of radio telemetry systems**
- **Fundamentals of Radio Engineering**
- **Designing systems for collecting and processing missile telemetry**
- **Through designing tract radio telemetry**
- **Information-measuring system of rocket and space technology**
- **Design of digital devices and pulse**



Department «Management and information technology in space systems»



NII Space Systems - leading center of development and investigation of new information, industrial, operational and resource-saving technologies, as well as scientific and technical support for creating, testing and targeted application of advanced rocket and space vehicles

RESEARCH AND EDUCATION PRIORITIES:

The head of department – professor Vokin G. G., the head of Department of Space System Research Institute under the name of A. Maksimov.

Special subjects:

- Space navigation, communication and control
- Control system launch vehicle and spacecraft
- Basics ballistics missiles and spacecraft
- Fundamentals of building rockets and spacecraft
- Outobjects systems and telemetry launch vehicle and spacecraft
- Terrestrial and space-based systems for monitoring natural resources
- Radio equipment of space systems
- Remote Sensing



Department «Technique and technology of rocket engine»



RESEARCH AND EDUCATION PRIORITIES:

The head of department – professor Panin I. G., CEO Isayev Chemical Design Engineering Bureau

Specialities:

- Aircraft and spacecraft engines
- Production of aircraft and spacecraft engines
- Research and development in the field of spacecraft engines

Isayev Chemical Design Engineering Bureau (KBKhMash) has experience and capabilities to design and develop :

- liquid fuel rocket engines and boosters with values up to 50 ton thrust ;
- engines and propulsion systems for manned and unmanned spacecraft ;
- impulse engines one - and two-component values thrust from 0.5 kgs to 250 kgs ;
- components and assemblies LRE cameras, turbo pump assemblies , gas generators , regulators, valves, tanks and components for gas cylinders , stainless steel , aluminum and titanium alloys ;
- high-efficiency pumps for different liquids ;
- units for different purposes , similar aggregates liquid fuel rocket engines and propulsion systems .



Department « Rocket technology »



RESEARCH AND EDUCATION PRIORITIES:

The head of department – professor Matvienko Y. G., head of Department «simulation of damage and destruction machines» Institute of Machines Science named after A.A. Blagonravov of the Russian Academy of Science (IMASH RAN)

Specialities:

- Dynamics, strength of machines, devices and equipment
- Mechanics of a liquid, gas and plasma
- Theory of mechanisms and machines

Institute of Machines Science named after A.A. Blagonravov of the Russian Academy of Science (IMASH RAN) solves fundamental research problems in the field of machine and engineering science on th basis of domestic mechanical engineering. The major research problem for IMASH RAN are: development of wave machines and devices for power engineering; new materials technologies and properties; dynamics of structures interacting with liquids and gas; machines and devices for ecology; medical equipment.



Department «Information systems and technologies of designing, production and management»



RESEARCH AND EDUCATION PRIORITIES:

The head of department – professor Obnosov B. V., CEO JSC «Tactical Missiles Corporation» («TRV»)

Specialities:

- Aircraft and Spacecraft Control Systems
- Design of missile long-range technologies
- Missiles Control Systems

«Tactical Missiles Corporation» («TRV»). Strategic targets which lead to the Corporation establishment consisted in keeping and developing of missilery's research and production capacity, supplying national defense capability, resource mobilization needed for highly effective guided missiles and air-based, ground-based, sea-based weapon systems production, also in strengthening military positions of Russia in world armament market.



THANK YOU FOR YOUR ATTENTION!

**Vice Rector for Research
Vyacheslav Startsev**