



# World of MEPhi

April ' 20

**ONLINE  
TOGETHER!**

## ONLINE-LEARNING

## ONLINE-LEARNING AT MEPHI

**Educational process**

On April 6, double classes were resumed at MEPHI. All relevant information on the distance learning format is in the corresponding section of the official site. Instructions for students and teachers are available at [home.mephi.ru](http://home.mephi.ru). In case of technical problems, please, contact technical support: [9999@mephi.ru](mailto:9999@mephi.ru). For other issues related to educational activities, please contact program managers or the student office: [stoffice@mephi.ru](mailto:stoffice@mephi.ru).

**Dormitories**

Students who leave the dorms for distance learning period are exempt from

fees for renting premises and utilities. Recalculation will be made according to written statements of students.

Residents should be self-isolated in their rooms and exclude movement between floors and exit from the building. The provision of food and medicine is carried out only by delivery of online orders.

The delivery was also organized by MEPHI volunteers — relevant link to order is on [home.mephi.ru/orders](http://home.mephi.ru/orders). To use the service, you should to link the account in the «Contacts» section to your account on the social network vKontakte and your phone number.

Only residents can enter the dorms, entrance and exit from 23:00 to 5:00 are prohibited. We recommend to students who were away to return in dorms after the end of quarantine measures.

Additional sanitization is carried out in all buildings. There are

medical posts in two dormitories (Moskvorechye St., 2, building 1 and Proletarsky Prospekt, 8, building 2). If you notice

symptoms of a respiratory infection, please, seek medical attention immediately!



## PROGRESS OF UNIVERSITY GETS FASTER BECAUSE OF SWITCHING TO ONLINE MODE

After unscheduled vacations at MEPHI, lessons were resumed in a new, distance format. How does MEPHI combine digital technology, theory, and practice in the new reality?

Everyone knows

The development of the digital environment is provided by appropriate infrastructure, content and trained specialists. In March, the MEPHI team had to accelerate the pace of introducing digital technology into the educational process. An unexpected challenge is to transfer thousands of students and teachers to the remote mode in a short time. The task is not easy even for a national research university.

Many years of MEPHI work experience with large educational online platforms came in handy: Coursera, EdX, Open Education, Universarium. At the beginning of 2020, the MEPHI team prepared about a hundred mass open online courses. Over the past five years, the number of students has exceeded 400 000 people. There are not just students, but people with

higher education who want to improve their qualifications and gain knowledge.

According to the MEPHI pedagogical staff, the distance format is very important in the educational process. It removes the routine lecture load from the teacher and allows them to focus on laboratory work and practical exercises. Now there are two video studios at MEPHI, where specialists are professionally engaged in shooting, editing, creating video content. Soon, the university will open new three video studios to constantly increase the production of high-quality content and consistently transfer all the main subjects to the remote format.

In real-time

Ready-made MEPHI online courses account for about 20% of the total educational material. Therefore, university practices distance learning in real-time.

— For remote classes, we primarily use Skype for Business, Zoom, WebEx platforms. These technologies allow online broadcasting without using material specially recorded at

the studio," said Valentin Klimov, deputy director of the MEPHI Institute of Intelligent Cybernetic Systems.

Before quarantine, teachers conducted these classes from classrooms, and students connected from home or dormitories. But since April 6, teachers conduct all classes from home.

One of the main problems — unpreparedness of most teachers to online mode: some older employees have not good working with new technologies. MEPHI solved this issue by creating an assistance system. A young employee of the unit is attached to an experienced age teacher. He arrives at the professor's house and conducts classes with him. This methodology really works: young people help the older generation to learn new technologies, and the older generation passes on the teaching methodology to young colleagues.

In virtual labs

Now the university has an electronic learning management system. There are two active platforms at MEPHI - online.

mephi.ru and LMS «Vector». Teachers upload their teaching materials to the system, and students receive remote access to educational resources.

The real laboratory work at MEPHI was replaced with virtual analogs using various simulators and an online laboratory.

— I am sure that VR- and AR-technologies will develop in education. We have already seen that all the efforts of our colleagues are aimed at the development of new methods for creating new content, the transfer of traditional formats to remote ones. The pandemic served as an additional impetus to the development of new technologies, and we need to use this moment wisely, — said V.Klimov

One of the problems that universities will encounter is to conduct exams in an online format. At MEPHI, testing of the remote control system and face recognition system has begun.

The transition to the online format is also an opportunity to raise the level of training at 11 MEPHI branches located in sev-

eral regions of Russia. Students and teachers in small towns listen to lectures by prominent scientists; get acquainted with the methodological and scientific developments of the Moscow site of the university.

MEPHI is confident that the pandemic will pass, and new technologies will remain in the educational process.

— "The use of distance learning is very convenient and necessary in some cases," V. Klimov noted. — For example, this format is well suited for teaching foreign students who can receive knowledge without crossing state borders, or for people with disabilities. Some students may not take academic leave for family reasons and thus not interrupt their studies for a long period. I think we would have come to the mass introduction of distance formats; just now we did it very quickly. After returning to normal mode, all materials will be used. This will allow universities to improve the educational process.

## NEWS

## FORUM «CAREER START ONLINE» BRING TOGETHER MORE THAN A THOUSAND MEPHI STUDENTS

More than a thousand students of the National Research Nuclear University MEPHI took part in the forum «Career Start Online», which was held on April 7-8 in online mode.

The forum became the first major career guidance event in the remote format in Russia. On the university's digital platform, MEPHI students visited the online offices of 33 organizations, found out

about career offers of enterprises, signed up to attend job or internship interviews.

Employers offered students a wide variety of online events: lectures and business games, case championships and a variety of workshops — on digital engineering, self-presentation skills, writing resumes and interviewing. Students in real-time were able to ask questions about career and personal growth opportuni-

ties, internships, and material support for young people.

The forum was attended by enterprises of the State Atomic Energy Corporation ROSATOM, research organizations and large industrial partners of MEPHI from the high-tech, information, and financial industries. Participation in the forum allows enterprises to form a talent pool of young specialists from among future university graduates.

## MEPHI STUDENTS ORGANIZE ONLINE-ACTIVITIES



Our university has switched to a distance learning format. This measures help to minimize the number of personal contacts and to avoid the accumulation of a large number of students in classrooms.

But student life does not consist only of study, so we offer all mephist to participate in various online activities that we launch during the period of forced restriction of personal contacts.

— Master classes from the student media center «Public speaking and training diction» (Sergey Balakir)

— Chemistry club (Dmitry Gorbunov, Alexander Isupov)

— Programming group (Ivan Nizhnichenko)

— Adobe Primer workshops (Maria Istomina)

— Workshops about how to create something in Photoshop, OBS and Blender (Yuri Timofeev)

— Club for work in Adobe Illustrator (Adelya Khasanova)

— Open online scientific lectures from the student scientific society

— Intellectual quizzes «My game»

— Book club in online format. Discussing what we read online with Sergey Balakir, vote for the book of the week and etc.

— Online movie club. Discussing different films with Polina Lavrentieva

— Chess tournaments

— Circle on space physics

— Poetic evening from the Club of Poetry Lovers

— «Mafia» - online! Margarita Pasechnik registered players and organized playing in groups.

— Workshops of Centre Fine Arts

From April 1 to April 14, sport challenge from SSK «Reactor» was held. According to the organizers, 89 students competed in the marathon, more than 600 video reports on training were published. Within two weeks, the organizers posted a set of exercises and the technique of their implementation on the official pages on social networks.

The contest «Miss and Mister of MEPHI» is held online. Follow in real time on the Internet!

If you have any ideas and free time, send your suggestions and we will help to implement them!

## VOLUNTEERS



## JOKES ASIDE!

On April 1, MEPHI students began to delivery of food, medicines and other essentials. The action is organized by the Joint Council of Students.

«Our action allows students to leave their dorms much less and stay at home. Now it is so important. All efforts should be taken to stop spreading the virus further. To do this, you need to stay home, go out only if it is necessary,» said Adelya Khasanova, chairman of MEPHI Joint Council of Students.

You can make an application at [home.mephi.ru](http://home.mephi.ru): choose the necessary products, medications, and home appliances. After that, a volunteer will contact you to ensure your order and state the final cost. After confirming the order, you need to pay by card (or make post-payment arrangements) and

wait for the volunteer with the products. He or she will leave products near your door.

Updates in the schedule for accepting applications and delivery you can find on the official page of the OSO MEPHI.

We remind you that in connection with the unfavorable epidemiological situation, the MEPHI dormitories' access regime has been tightened. Only residents can enter the dorms. Entrance and exit from 23:00 to 5:00 are prohibited. When you leave the building, you must tell the security guard the purpose of the exit and the planned time of return. You can go only to the grocery shop or pharmacy.

Doctors at the FMBA polyclinic strongly recommend observing a social distance 1.5-2 meters. We ask you to be conscious and to go out only in case of an emergency.

## VOLUNTEERS OF SFTI MEPHI HELP VETERANS

The volunteer movement at the Snezhinsk Institute of Physics and Technology of MEPHI unites many socially active students. Together with members of the SPTI Volunteer Club «Initiative», members of student groups come to help veterans, orphan homes and animal shelters.

During the period of self-isolation and distance learning at the university, the Volunteers of SPTI MEPHI took on another task — to help their teachers to solve technical difficulties in online-learning process. In addition, the guys are constantly in touch with the veteran organization of the university.

«During the period of self-isolation, we should help the lonely living people with the purchase of essential goods and

medicines,» said Daria Seliverstova, member of student construction brigade «Freya». — We know that old people, especially 65+, are in the group of the risk. Therefore, we are involved in the work of the headquarters of mutual aid #WeAreTogether 2020.

Center for Social Services of Snezhinsk accepts an application from an elderly person and sends documents by e-mail to the headquarters of volunteers. At the headquarters, documents are printed out and transferred to volunteers with personal protective equipment. They go to a person who needs help to take his application and money for purchases. Volunteers bring the goods or medicines to the applicant, execute of delivery acceptance act, and then, surrender the document in headquarters.

## REGIONS

## STUDENTS OF VITI MEPhI WON CONTEST OF NEWSPAPER «COUNTRY OF ROSATOM»

Students of VITI MEPhI entered the top-10 in the competition dedicated the anniversary issue of the newspaper «Country of Rosatom».

The first issue of the newspaper of the nuclear industry "Country of Rosatom" was released ten years ago. It is a weekly newspaper of State

Atomic Energy Corporation Rosatom.

The newspaper presents all the most interesting things in the life of the nuclear industry: the main news, events, people, technologies. On the eve of its decade, the newspaper announced a photo contest. According to its results, the top-10 photos were selected. One of

them was done in the audience of VITI MEPhI at the lecture of the course «Safety Culture».

Among the winners are also photos at an almost five-meter depth in the pool, during sports and just outside, during a break at work, on the background of the famous Sydney Opera House during the International Youth Nuclear Congress, etc.



## SARFTI TEACHERS AWARDED THE TITLE «BEST INVENTOR OF RFNC-VNIIEF»

For the first time, Russian Federal Nuclear Center "VNIIEF" held a competition for the title of "Best Inventor of the RFNC-VNIIEF" according to the results of 2019. Winners and prize-winners were determined in two categories - "Best Inventor" and "Best Young Inventor (under 35 years old)".

According to the results of the competition, three employees of the nuclear center were awarded the title «Best Inventor of the RFNC-VNIIEF». Two of them concurrently teach at SarPTI MEPhI. The first place was taken by Konstantin Mikhaylyukov, head of the ITMF research laboratory. Dmitry Nikolaev, leading researcher of KB-3, professor of the Department of Radiophysics and Electronics of SarPTI MEPhI was awarded the second place. The third place in the same nomina-

tion was given by Sergey Gerasimov, head of the research department of KB-2, professor of the department of special instrument engineering at SarFTI MEPhI.

The titles "Best Young Inventor of the RFNC-VNIIEF" were awarded to KB-2 researcher Nikolai Trepalov (1st place), KB-1 category research engineer Sergey Levin (2nd place) and KB-1 category II design engineer Egor Chesnokov (3rd place).

The competition regulations take into account the maximum number of indicators characterizing inventive activity: the number of security documents registered in Rospatent for the reporting period, the complexity of the technical solved task, the implementation of results, the participation in exhibitions of inventions, and publication activity.

## STUDENT OF SPTI MEPhI — SILVER MEDALIST OF OLYMPIAD "I AM A PROFESSIONAL"

The results of the Olympiad were summed up in the spring of 2020: the winners received certificates and invitations to take an internship at the leading enterprises. Alexander Pilshchikov entered the top-3. He became silver medalist. Alexander watched webinars, read methodological materials and independently completed test tasks. According to Alexander, it helped him to win.

More than four thousand students were registered for qualifying stage of the All-Russian Student Olympiad "I am a Professional" in the field of "Digital Designing and Modeling" in this season. In December, 75 people were selected. Only 50 students from 18 universities from 12 cities, including Snezhinsk, took part in the final. It was held in

January 2020 at St. Petersburg State University. Student of SFTI MEPhI Alexander Pilshchikov was the only one participant from MEPhI in the field of "Digital Designing and Modeling" at the Olympiad.

Participants had to spend 4 hours to complete the theoretical part (to answer 7 questions on the topic of Computer-Aided Engineering), to build a 3D part using special software (Computer-Aided Design, CAD); to solve 5 problems related to strength and thermal conductivity using the SAE / FEA-system. According to experts, the tasks were based on real practical cases.

Alexander Pilshchikov is also gold champion of competition Atomskills and Hi-tech 2018 in the competencies "Design Engineer" and "CAD Design Engineering".

