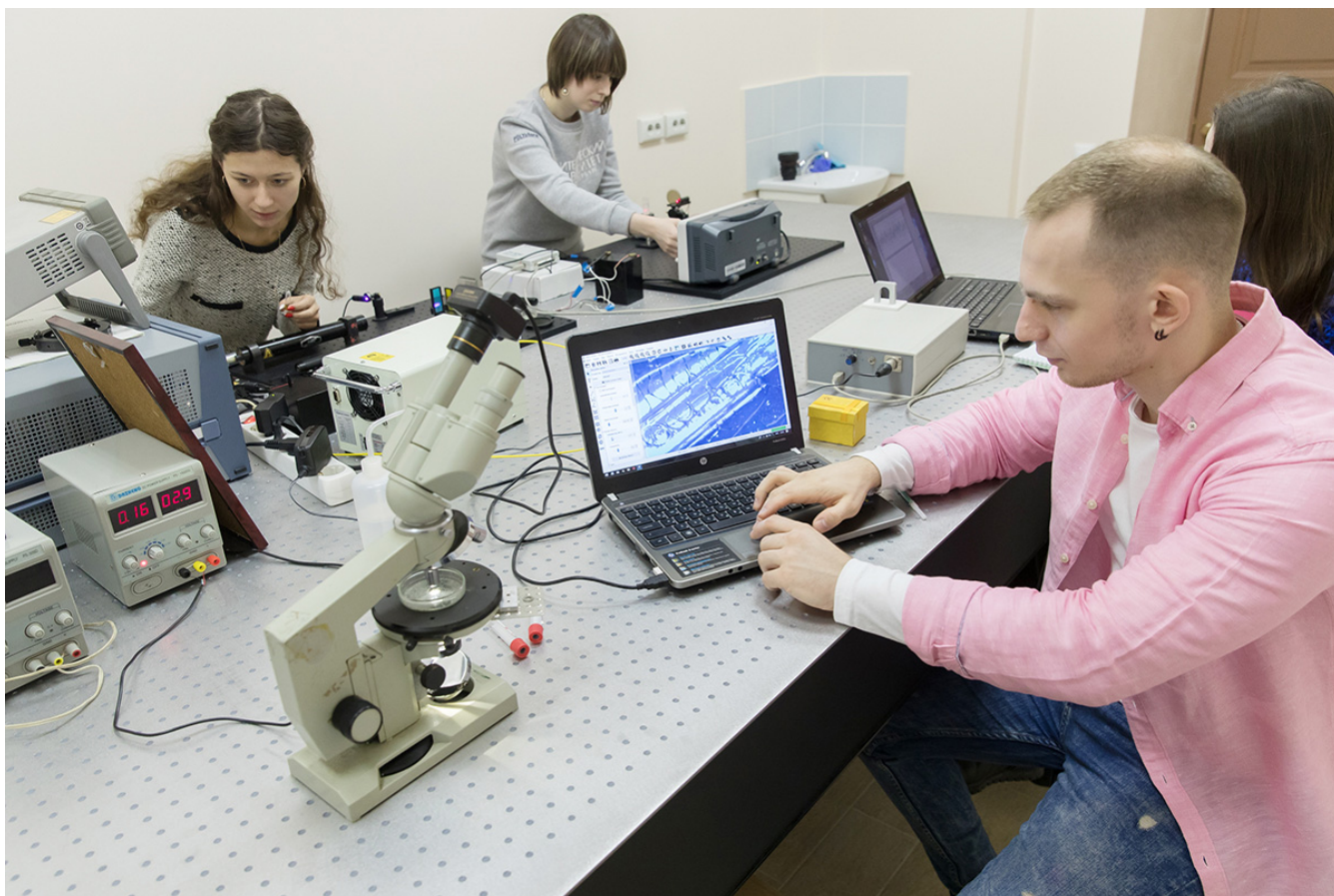


## #What\_to\_become: a Master's Degree Program in Laser and Fiber Optic Systems

In 2019, a new international Master's degree program in [Laser and Fiber Optic Systems](#) starts at SPbPU; it is implemented on the basis of the Institute of Physics, Nanotechnology and Telecommunications. The current trends show big interest of both Russian and foreign students in studying in the areas related to optical and laser systems, and more and more young people are striving for careers in the high technology spheres.

Masters in Laser and Fiber Optics Systems international program will have employment opportunities in high-tech companies; they will be able to work in the field of innovation, information and communication technologies, optical devices, medicine, information processing and electronics. Today, many IPNT graduates occupy prominent positions in leading Russian companies operating in the sphere of modern laser and fiber-optic systems. In their opinion, the need for specialists in this field will only grow over the time. Moreover, this is a global trend.



Program partners comprise such companies and universities as National Instruments (USA), Schlumberger (France), Corning (USA), Laser Zentrum

Hannover (Germany), Technical University of Munich (Germany), Tsinghua University (China), Ioffe Institute of Physics and Technology, and many others.

When developing the international program, its coordinators took into account experience of leading foreign universities, analyzed already existing in the world programs, opinions of graduates and potential employers. Taking into account the wishes of both Russian and foreign colleagues, the main focus of the program is made on obtaining practical working skills. In addition to theoretical disciplines, the program includes a variety of practice-oriented courses, which will allow students to obtain comprehensive knowledge in optics, photonics, laser and fiber-optic technologies.

The list of major courses that students will study includes:

- Laser systems and technologies
- Fiber optic systems and sensors
- Element base of fiber-optic systems
- Optical modeling
- Optoinformatics and quantum cryptography
- Spectroscopy of laser technology materials
- Modern information technology
- Optical signal processing

In addition to Russian specialists, invited professors from universities of Europe and other countries will be engaged in the educational process. Considering the practical orientation of the new international educational program, all students, without exception, can count on intensive work on research projects, most of which are aimed at solving applied and practical tasks of real industrial partners.



The program coordinators paid special attention to the internship: in the process studying, the students will work at both SPbPU laboratories and St. Petersburg enterprises. And in the course of the teaching practice, future masters will supervise projects of undergraduate students.

The Laser and Fiber Optic Systems Program is open to students with a Bachelor's degree / Specialist's degree in the relevant or a related field. Since the program is taught in English, the minimum level of proficiency in English should be no lower than B +.

Do you still have questions? Ask the program coordinator, candidate of technical sciences, associate professor, Director of the Higher School of Applied Physics and Space Technologies Ye.N. VELICHKO.

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