Camp in Optical System Design

National Research ITMO University

Degree or qualification is awarded:

Language of study: **English** Mode of study: **part-time**

Duration: 4 weeks

Availability of free education: **no** Price: **56,000 RUB (~700 euro)**

Programme webpage at the university website:

https://en.itmo.ru/en/viewjep/3/21/Camp in Optical System Design 2021.htm

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Duration: June 7-20, 2021 - theoretical part & June 28 - July 9, 2021 - practical part

Outcome: ITMO official certificate, 4 ECTS

Deadline: 15 May 2021

Admission Requirements: Bachelor's level students in respective fields (4th year and above) Master's and PhD

students

Program of the summer school

The camp is designed for students with the background in optics or those interested in broadening their knowledge in this field. So if you could be easily inspired just by thinking about how to reduce aberrations in optical systems or increase the resolution of imaging system, this program is exactly the thing for you!

Summer Camp Program

The camp incorporates a list of 13 topics in optical system design and includes both theoretical classes and hands-on experience of using special optical design software that can be applied for developing a wide range of optical instruments and devices.

List of possible research topics:

- Design of a two-mirror optical scheme of a telescope's objective
- Design of a catadioptric scheme of a telescope's objective
- Design of a telescopic system with lens inverting system
- Design of a telescopic system with prism inverting system
- Design of a microscope's objective
- Design of a photo objective with fixed focal length
- Design of a system for laser beam collimation
- Design of a system for laser beam concentration
- Design of an objective for the LWIR region
- Design of a condenser lens
- Design of an evepiece
- Design of a microscope's illumination system in microscope
- Design of a lens endoscopic system

- May 27, 2020 for citizens of the EU, Denmark, Norway, China, India, Japan, Iran, Latin American countries, Iceland and visa-free countries;
- April 14, 2020 for citizens of all other countries.

Specializations within this programme