DEPARTMENT OF PHOTONICS

Department of Photonics was established in 1931 and it is one of the oldest and the most renowned departments in the University. The research activity of the Department is focused on pioneering research in the fields of Electronics and Photonics. In the last few decades research and academic activity were focused mainly on laser technology, photovoltaics and solar energy technology. Many outstanding Russian scientists and engineers have graduated from the Department of Photonics for the last decades. The most renowned of the Department's alumni is the laureate of the Nobel Prize in Physics (2000) Prof. Zhores Alferov.

SAINT PETERSBURG ELECTROTECHNICAL UNIVERSITY "LETI"

Saint Petersburg Electrotechnical University 'LETI' was founded in 1886 and became the first European higher education institution specialized in the field of electrical engineering.

Today Saint Petersburg Electrotechnical University is a leading Russian educational and research center whose mission is to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.

CONTACTS

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+7 (812) 234-35-53
www.etu.ru
PHOTOVOLTAICS AND SOLAR ENERGY TECHNOLOGY
MASTER'S PROGRAM

Students get knowledge of underlying physical principles and material science aspects of photovoltaics, technology and metrology of solar modules, equipment, design and maintenance of solar power plants. Special attention is dedicated to silicon photovoltaics, including the most efficient HIT structures. Students have access to the most modern and sophisticated technological and metrological equipment, carry out scientific research and get skills of practical work with real metrological instruments and technological apparatuses.

In 2015 program «Heterostructure Solar Photovoltaics» successfully underwent independent assessment and was awarded EUR-ACE® label by ENAEE – European Network for Accreditation of Engineering Education.

FACULTY & DEPARTMENT

Master's level training is carried out at the:

- Faculty of Electronics
- Department of Photonics

COURSES & EDUCATION

Fundamental Disciplines

- Renewable Energy Sources
- Solar Energy Materials
- Micro- and Nanotechnology Processes
- Modern Problems of Electronics
- Optical and Physical Methods of Diagnostics of Solar Energy Materials

General Educational Disciplines

- Foreign Language
- Basics of Scientific Research
- Computer Technology and Simulation in Electronics
- Commercialization of Results of Scientific Research and Development
- Microprocessor Technology

Special Disciplines

- Diagnostics of Solar Energy Materials and Structures
- Metrology of Solar Cells and Modules
- Technology of Solar Cells and Modules
- Equipment and Automation of Solar Power Plants
- Laser Technologies in Manufacturing of Solar Modules

MASTER'S PROGRAM OVERVIEW

2 years – full-time – 120 ECTS/60 USCS

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INTERNATIONAL COOPERATION

- Brandenburg University of Technology Cottbus-Senftenberg (Brandenburg, Germany)
- Otto von Guericke University (Magdeburg, Germany)
- Satbayev Kazakh National Technical University (Almaty, Kazakhstan)
- Lappeenranta University of Technology (Lappeenranta, Finland)
- University of Technology of Troyes (Troyes, France)
- HEVEL SOLAR (Cheboksary, Russia)
- R&D CENTER TFTE (St. Petersburg, Russia)