

# Instrumentation Technology (Master)

Saint Petersburg Electrotechnical University "LETI"

Degree or qualification is awarded: **Master**

Language of study: **Russian**

Mode of study: **full-time**

Duration: **2 years**

Availability of free education: **yes**

Price: **208 000 rubles per year**

Programme webpage at the university website: <https://etu.ru/en/study/masters-degree/instrumentation-technology>

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The program is aimed at training specialists in the field of orientation systems development and positioning of moving objects used in control systems and ensuring the safety of all existing types of transport, underwater- and spacecraft, in robotics, medical equipment, etc. Master's programs

Within the framework of the direction 12.04.01 Instrumentation Technology the following programs are presented:

- Instruments and Methods for Quality Control and Diagnostics (Department of Electroacoustics and Ultrasonic Techniques);
- Acoustic Devices and Systems (Department of Electroacoustics and Ultrasonic Technique);
- Integrated Navigation Technologies (Department of Laser Measuring Navigation Systems);
- Laser Measuring Technology (Department of Laser Measuring Navigation Systems);
- Local Measuring and Computing Systems (Department of Information Measuring Systems and Technologies);
- Adaptive Measuring Systems (Department of Information Measuring Systems and Technologies).

## Key points

- The basis of the program is a combination of fundamental knowledge of mathematical models and physical fundamentals that provide information on the state and properties of controlled objects in real conditions with stable practical skills of design and experimental activities;
- The main content of the program is the technology of creating instrumentation and systems based on the achievements of quantum electronics;
- Particular attention is paid to the professional competencies in the use of modern information technologies for

creating systems for measuring and controlling complex objects in various fields of science and technology.

## **Skills acquired**

- Metrological support - metrological services of public and private companies;
- Design of measuring and computing systems - creation of measuring systems for residential, industrial facilities of public and private companies;
- Electronics and programming - creation of measuring channels and built-in measuring systems for various purposes (including onboard systems);
- System programming - the creation of local computing systems for monitoring and control of objects of varying complexity;
- Network technologies - creation of monitoring systems for distributed objects.

## **Specializations within this programme**

### **Your future career**

Graduates work in research, design, production and operational spheres in scientific, educational and other business areas: World Ocean Studies, Construction, Shipbuilding, Precision Instrument Engineering, Audio Engineering, Metrology, Medical Technologies, etc.

Graduates also can be involved in the design, development, production and operation of navigation equipment and laser measurement technologies of various levels of complexity.