

# Efficient Electric Power Industry (Master)

Saint Petersburg Electrotechnical University "LETI"

Degree or qualification is awarded: **Master**

Language of study: **English**

Mode of study: **full-time**

Duration: **2 years**

Availability of free education: **yes**

Price: **200 000 rubles per year**

Programme webpage at the university website:

<https://etu.ru/en/study/masters-degree/efficient-electric-power-industry>

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This study programme consists of blocks of theoretical courses dealing with the field of energy, electrical engineering and energy management. At the same time, it comprises a blocks of courses focusing on exploiting theoretical background in practice. The graduates show the knowledge and understanding of the principles and characteristics of device equipment of the power systems and circuits, using of electricity in sources of electric light and heat, and the is-sue of electric power quality.

## About the program

Important characteristic of industry and technology at the moment is an energy consumption, which increases rapidly. Currently electric energy is a kind of goods, like a water or fuel. And consumer needs to control quantity and quality of energy provided to him. Industrial enterprises need to reduce power consumption for increasing their profit and for saving environment. In another hand they need to control quality of power they buy, and try to not decrease power quality in common network with their equipment.

Master's degree program «Efficient electric power industry» is focused on ways to make technology more energy-efficient. Students get knowledge about modern electrotechnological equipment allowing to make more product spending less energy. They get practice in modeling processes in power network for optimization of processes modes. They learn also basic principles of energy audit which is main tool to control own power consumption.

The program is offered by Electrotechnology and Converter Engineering Department and Robotics and Industrial Automation Department. Since 1994 these Departments carry out work devoted to problems of energy efficiency, took part in joint European projects TEMPUS in cooperation with universities of Hannover (Germany), Padua (Italy), Riga (Latvia) and others.

Master's degree program «Efficient electric power industry» consists of advanced professional studies, elective courses and requires Master's Thesis preparation. Program curriculum includes fundamental, special and general education courses.

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Graduates of the "Electroenergetics and Electrical Engineering" program are capable of:

- Articulating tech instructions, developing and utilizing automation during designing stage of electrical engineering equipment;
- Understanding manufactured and developing new electrical engineering and electroenergetic equipment, managing projects for various electrical engineering and electroenergetic equipment;
- Managing actual electrical engineering processes during the developing stage of electroenergetic and electric devices, providing the output that suits the market.

Graduates of the "Automated Electromechanical Complexes and Systems" program develop and utilize:

- Automatic and automated electromechanical systems;
- Local electromechanical systems;
- Integrate local subsystems into complex automated electromechanical production complexes and systems.

Graduates are employed at leading international and Russian companies:

- OJSC «Power Machines»;
- Kirov Plant;
- Leningradsky Metallichesky Zavod;
- Siemens; Inductotherm;
- ABB;
- AEG-Eloterm;
- Schneider Electric;
- Eurodrive

## **Specializations within this programme**