National Technical University “Kharkiv Polytechnic Institute”

Specialty of Electric Power Engineering, Electrical Engineering and Electromechanics
Specialization of Electroinsulating, Cable and Fiber Optic Technique

Electroinsulating, cable and fiber optic technique is a unique opportunity to get a comprehensive theoretical and practical training in the development and implementation of the latest designs and systems, high-performance technologies on the only specialization in Ukraine.
Bachelor’s Degree in Electric Power Engineering, Electrical Engineering, and Electromechanics

Bachelor’s educational program:

- Electrotechnical Materials
- High Voltage Equipment and Design of Electrical Insulation Systems
- Basics of electrical insulation techniquut
- Technological Lines for the Manufacture of Power and Optical Cables
- Mathematical Modeling in Electrical Insulation, Cable and Fiber Optic Technique
- Design of Optical and Power Cables
- Installation and Operation of High-Voltage and Optical Cable Systems
Areas of knowledge application:

Development of Designs and Innovative Technologies for the Manufacture of Modern Electrical Insulation, Cable and Fiber Optic Systems Implementation, Installation and Operation of High-Tech Efficient Electrical Insulation, Cable and Fiber Optic Systems for the Power Industry

An innovative approach to learning and tradition guarantee the acquisition of basic and professional knowledge.
Our graduates work at:

- Companies for the production of electrical insulation, cable and optical systems
- Power Grid Companies
- Repair companies
electrical equipment of power plants and substations
- Research institutes of electrical insulating and cable industry
- Installation Companies

Cable and Electrical Insulation Systems of Renewable Energy
Master’s Degree in *Electroinsulating, Cable and Fiber Optic Technique*

Master’s educational program:

- High-voltage Electrical Insulation Systems
- Physical Basics of Fiber Optic Technique
- Electromagnetic and Thermophysical Processes in Electrical Insulating and Cable Systems
- Testing Techniques for Electrical Insulation, Cable and fiber Optic Systems
- Information Technology in Electrical Insulation, Cable and Fiber Optic Technology
- Equipment of Modern Electrical Insulation Laboratories
Areas of knowledge application:

Diagnostics of modern high-voltage electrical insulating systems
Development and implementation of fiber-optic cable systems to create a digital intelligent infrastructure of electrical networks and monitor the technical condition of existing electrical equipment based on the analysis of global innovation trends
Programming general and special tests with the argument of modern technical means for measuring the parameters of electrical insulating and cable systems
A systematic approach to the design and implementation of modern combined with optical power cable and electrical insulation systems using modern information and computer technologies
Principles of operation of electrical insulation laboratories with high safety standards, a flexible system for completing technical equipment, software and an automated control system
Actively adapted technology of “blended” training allows you to perform course projects with game design elements, carry out an experimental part of research work on modern technological equipment, master information technologies and implement real graduation projects in the production of electrical and electric power companies of the educational cluster.

Electroinsulating, cable and fiber optic technique is an established, decades-tested and tested integrated approach combining theoretical and practical professional knowledge in the development and implementation of new designs and systems, high-performance technologies.
Graduates of the our *Specialization* successfully work as:

- Technologists
- Designers
- Chief Engineers for the installation, installation and operation of modern electrical insulation, cable and fiber optic systems
- Sales Managers of electrical insulation, cable and fiber optic systems