

National Technical University  
“Kharkiv Polytechnic Institute”  
ELECTRIC POWER ENGINEERING  
DEPARTMENT  
Electric systems and chains



## Areas of studying:

**Electric systems and chains** Objects of professional activity of bachelors and masters is the transport and distribution of electrical energy.

**Technique of high voltages and diagnostics of electrical network** Objects of professional activity of bachelors and masters is the maintenance and diagnostics of electrical network equipment.



## **Areas of studying:**

**Methods for calculating the operating modes of electric networks**

**Exploitation of equipment and organization of implementation of repair works**

**Evaluation and supervision of resource utilization of equipment electrical networks and systems**

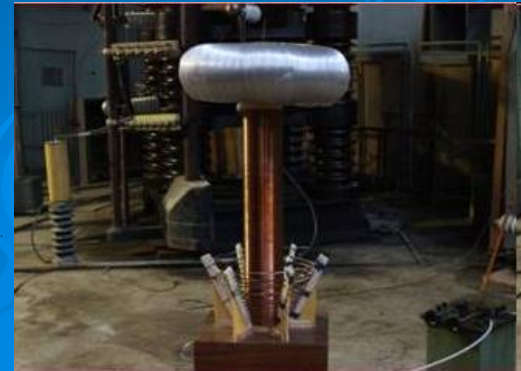
**Analysis of the damage objects**

**Ensure electromagnetic compatibility when using electrical networks**

**Protection equipment of electric power systems against overvoltage**

**Estimation of the reliability of electric power systems elements**

**Management modes of operation of electric power systems**





## **Employment perspectives:**

- Electric department of electric stations, substations**
- Departments NPC "Ukrenergo"**
- Power companies**
- Design and engineering and scientific research institutes and organizations**
- Chief Power Engineer Department of various power and industrial enterprises**
- Departments of lightning protection and diagnosis of various of power and industrial enterprises**



**General academic disciplines for the students of our department  
(bachelor's level)**

**Electric systems and networks**

**Technics of high voltage**

**Electrical stations and substations**

**Electromagnetic and electromechanical transient  
processes**



**General academic disciplines for the students of our department  
(bachelor's level)**

**Power Distribution Networks**

**Optimization of modes of electric power  
systems**

**Systemically networks  
and their modes**

**Mathematical energy challenges**

**Fundamentals of relay protection  
and automation of power systems**





**General academic disciplines for the students of our department  
(master's level)**

**Designing transmission lines and substations**

**Mode control of electric power systems and automation**

**Electric systems and networks and their development  
prospects**

**Modern Problems and methods of mathematical and  
computer modeling in power engineering**

**Electric and magnetic fields of power plants, safety and  
electromagnetic ecology**



# General academic disciplines for the students of our department (master's level)



**Organization energy consumption**

**Theory of reliability problems in  
electric power systems**

**Theoretical bases of electromagnetic  
compatibility in the electric power  
industry**



**Modern lightning protection systems**

**Renewable energy sources**



# **Our contacts:**

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