National Technical University
"Kharkiv Polytechnic Institute"
department for
Transport engineering industry

Department of
Electrical transport
and Construction of Diesel locomotives
**Department of Electrical transport and Construction of Diesel locomotives**

**Specialities**

- **Electric transport**
  - Electric locomotives, electric trains, subway trains, the power supply systems

- **Locomotives and locomotive establishment**
  - Locomotives, diesel locomotives, carriages

**Qualification after graduation:**

- Bachelor of electricity, electrical and electromechanical
- Master of electricity, electrical and electromechanical
- Bachelor of railway transport
- Master of railway transport
Direction of educating

Preparation of students on a specialty "Electric transport" is conducted, oriented not only on the traditional types of electric transport for railways but also on perspective high-speed wheeled, and also high-speed maglev.
Direction of educating

Graduating students of specialty "Locomotives and locomotive economy" are able to design diesel engines, carriages and special railway technique, and also their components: a power equipment is combustion engines, electric machines and electric drive; mechanical part, control system by motion of both main and industrial railway transport. They can also carry out scientific and marketing research, operate railway rolling stock.
Prospects of employment

The graduating students of department are highly sought not only in the field of railway transport (locomotive and rail car factories, manufacturing industry parts, repair factories and depots, subways, their power supply system)…
Prospects of employment

…but also in those industrial sectors which have a technological similarity with the objects of railways (energy, automotive, agricultural machinery, industrial and urban transport, electric power facilities and system of power supply of enterprises, cities and villages).
Basic special disciplines for a level “bachelor”

Information technologies in transport;
Basics of electric power and power supply;
The theory of locomotive traction;
The power electronic converter and microprocessor technology;
The mechanical part of the rolling stock;
Traction Drive;
Independent power systems;
Control systems;
Technology of production of railway transport;
Maintenance and repair of rail transport;
Simulation of railway facilities;
Modelling of processes of rail transport.

Basic special disciplines for a level “master”

Electrical equipment of rolling stock and traction networks;
Microprocessor based devices;
Computer technologies in transport;
Prospective rail transport;
Social and environmental aspects of the operation of rail transport;
Computer-aided design of the rolling stock;
Automatic control systems;
The design of the railway transport.
Staff of department

Victor Omryanyenko
doctor of technical sciences, professor.

Vyacheslav Masliev
doctor of technical sciences, professor.

Gennady Krivyakin
Ph.D., associate professor.

Dmytro Iakunin
Ph.D., associate professor.

Lilia Overyanova
Ph.D., associate professor.

Eugene Ryabov
Ph.D., senior researcher.

Bagish Yeritsyan
Ph.D., associate professor.

Alexander Demidov
senior lecturer.