National Technical University
«Kharkiv Polytechnic Institute»
«Institute of Education and Science in Engineering and Physics»

Department of Radio Electronics
Speciality: 105 «Applied Physics and Nanomaterials»
Specialization: 105-01 «Engineering of Radio Electronic Systems»

Education qualification levels:
✓ Bachelor of Applied Physics (4 years);
✓ Master of Applied Physics and Nanomaterials (21 months);
✓ Doctor of Philosophy in speciality 104 «Physics and astronomy» (4 years).
The main areas of specialists training

- development of radio engineering and radiophysical equipment;
- maintenance of complex radio engineering systems;
- design and maintenance of antenna-feeder systems;
- development and maintenance of complex electronic systems;
- maintenance of computer and computerized automatic control systems;
- development and maintenance of electronic power systems;
- space environment research.
BASIC DISCIPLINES THAT STUDENTS LEARN

FUNDAMENTAL DISCIPLINES:

✓ Higher Mathematics;
✓ Physics;
✓ Theory of Electromagnetic Circuits;
✓ Methods of Mathematical Physics;
✓ Electrodynamics;
✓ Theory of Radio Circuits.
SPECIAL DISCIPLINES:
- Semiconductor and Optical Electronics
- Digital Electronics
- Radio Circuits and Signals
- Signal Processing Techniques and Systems
- Signal receiving devices
- Signal generating devices
- Antennas and VHF devices
- Fundamentals of Information Theory
- Computer Design of Radio Electronic Systems
- Radio Physics of Geospace
- Basics of Programming
- Electronic Database
- Computer Modeling
- Microprocessor systems
IONOSPHERIC OBSERVATORY

Training of specialists is carried out in conjunction with the Institute of ionosphere NAS and MES of Ukraine

Ionospheric observatory of the Institute of Ionosphere
Antennas and equipment of the Ionospheric Observatory of the Institute of Ionosphere

The fully steerable antenna.

The 100-m-diameter parabolic antenna

Ionosonde «Basis»

Fragment of the transmitter

Data receiving and processing systems

The HF heating facility
EMPLOYMENT OPPORTUNITIES

- electronic industry enterprises;
- scientific-research institutes;
- information computational centers;
- telecommunication agencies (cellular and satellite communications);
- organizations for development of equipment for automation, systems and networks of data transmission and processing;
- radio and TV stations;
- power supply enterprises;
- electronic trading corporations;
- enterprises for the production and sale of computer equipment
CONTACTS

Department of Radio Electronics

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