**Annotation of the programme**

**140801.65 (14.05.04) Electronics and automatics of physical devices**

**(specialist programme)**

**Title of the programme:** Automation and information and measuring systems of physical devices

**Objectives of the programme:** to get higher vocational education allowing a graduate to work successfully in the field of his activity connected with electronics and automatics of physical devices, technological process automation and productions in the nuclear and chemical industry; to have the commonly cultural and professional competences promoting his social mobility and stability in the labour market.

**Terms of education**: at the full-time department – 5 years 6 months.

**Speciality chair:** Chair of electronics and automatics of physical devices (№ 5).

**Professional spheres:** development of software-technical and algorithmic means of automated control system of high-tech and science-based productions of the nuclear and energy industry associated with the choice of research methods required; industrial engineering activity providing the operation of current developments and application of new science-based ones; conducting analytical, simulation and experimental researches in the field of production automation using the latest science and technology achievements.

**Objects of the professional activity:** management and control devices, automatic and automated systems, their mathematical, information hardware and software.

**Curriculum features:** intense training on generally professional and special subjects. There are some subjects among basic and special ones: mathematics, informatics, chemistry, a foreign language, general and nuclear physics, automation system computing problems, operating systems, mathematical computer systems, engineering graphics, theoretical mechanics, automatic control theory, electrical engineering, electronics, technological process automation, microprocessor systems, information technologies, controllers and microcontrollers programming, automation system operation units, physics and nuclear reactor control, nuclear fuel cycle technology, dosimetry and radiation protection.

Specialists in the field of electronics and automatics are demanded not only in the nuclear, but also in all other industries.

Accounting requirements of employers in forming the curriculum and a number of subject content is an advantage of this GEP. The skilled and qualified teaching staff meeting all requirements of educational standards and also highly qualified specialists of the basic enterprise JSC "Siberian Chemical Plant" are involved in GEP realization.

**The list of enterprises for the practical training and graduates’ employment:** enterprises of the State Corporation ROSATOM as well as other industry organizations. They are JSC "Siberian Chemical Plant", Seversk; Federal State Unitary Enterprise "Mining and Chemical Plant", Zheleznogorsk; JSC "Production Association "ECP", Zelenogorsk; JSC "Novosibirsk Plant of Chemical Concentrates", Novosibirsk; Beloyarskaya NPP, Zarechny; Leningradskaya NPP, Sosnovy Bor; JSC "Tomsk Petrochemical Plant", Tomsk, etc.