**Annotation of the programme**

**15.03.04 Automation of technological processes and productions**

**(Bachelor programme)**

**Title of the programme:** Automation of technological processes and productions in the chemical and technological, power industry.

**Objectives of the programme:** to get higher vocational education allowing a graduate to work successfully in the field of his activity connected with automation of technological processes and productions in the chemical and technological, power 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 – 4 years, external – 5 years.

**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 chemical and nuclear industry associated with the choice of the 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, information technologies, chemistry, physics, a foreign language, economics and production control, engineering and computer graphics, applied mechanics, materials science, electrical equipment and electronics, the theory of automatic control, metrology, standardization and certification, computers, systems and networks, programming and algorithmization, technological processes of automated productions, automation equipment and control, diagnostics and reliability of automated systems, system and process simulation, automation of product life cycle control, quality management, health and safety, automated production organization and planning.

Bachelors in the field of technological process automation are demanded not only in chemical nuclear, but also practically 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.