**Abstract of the programme**

**12.03.01 Instrument engineering**

**Title of the programme:** software and information and measuring technologies in instrument engineering.

**Objective of the programme**: the programme is intended for training bachelors in the area of Instrument making who can successfully work in the field of information technologies, measuring equipment and industrial automation, mainly at nuclear enterprises for "Innovative development of Rosatom State Corporation” and "Nuclear power technologies of new generation for 2010-2020" programmes in which the basic enterprise FSUE “Mayak” Production Association (Rosatom State Corporation) participates.

**Training course duration**: 4 years.

**Basic department:** the department of electronics and automatics of OTI NRNU MEPhI.

**Professional activity field** of bachelors includes research, development and technologies of creating and operating devices for receiving, registration and processing information about environment, technical and biological objects.

**Professional activity objects** of bachelors are devices, complexes and element base of instrument engineering; production technology of materials, elements, devices and systems, and also software and information and measuring technologies in instrument engineering.

**Curriculum characteristics**

The curriculum is based on educational standards of NRNU MEPhI taking into account qualification requirements of the basic enterprise FSUE “Mayak” Production Association (Rosatom State Corporation). The curriculum includes humanitarian, natural-science, all-technical disciplines according the requirements of educational standards, and also special disciplines necessary for work at the basic enterprise, such as "Introduction to instrument engineering", "Computer technologies in instrument engineering", "Radiation safety", "Fundamentals of devices and systems design ", etc. Disciplines are read by skilled teachers having a degree or being leading experts of the basic enterprise.

**The basic enterprises for practical training and employment** are FSUE “Mayak” Production Association (Rosatom State Corporation); USDI "VNIPIET" (Rosatom State Corporation); FSUE “Southern Urals Biophysics Institute” (FMBA RF); FSUE “Russian Federal Nuclear Center – VNIITF” (Snezhinsk); PJSC Radio plant (Kyshtym).