**11.03.03 Design and technology of electronic equipment**

**Program Summary**

**Program title**: Design and technology of electronic equipment

**Program goals**: Training of bachelors in the field of research, design, development and technology of electronic equipment.

**Duration of full-time program** - 4 years.

**Department**: Department of general technical disciplines of the Faculty of electronics and information technology and electronics of SPTI NRNU MEPhI.

**Areas of expertise**: research activities in areas that use mathematical methods and computer technologies; the solution of different problems using mathematical modeling of processes and objects and software; the development of efficient methods for solving problems of natural science, engineering, economics and management; software and information support of scientific, research, design, operational and management activities; teaching of mathematical courses (including computer science).

**Objects of professional activity**: basic concepts of fundamental (theories, theorems, methods, mathematical models) and applied (algorithms, programs, databases, operating systems, computer technology) mathematics.

**Curriculum features**: the curriculum is built on the basis of NRNU MEPhI standards of higher education taking into account the professional requirements of the Russian Federal Nuclear Center VNIIEF. Since the primary job of graduates is related with ensuring and carrying out fundamental and applied research in the interests of the nuclear weapons complex, the main emphasis in training is on the study of modern innovative methods of obtaining and processing information, as well as the development, design and technologies of production of electronic devices that implement these principles. For that purpose the curriculum has such courses as Single-chip microcontrollers (including the programmable systems on a chip), Programmable logic circuits, Analog-digital devices, Microprocessors in measuring devices, hardware description language of integrated circuits and others. In addition, in the process of training the student learns to work with different CAD systems from CAD design of the equipment to FPLD CAD, including several CAD for simulation and debugging of microcontroller hardware and software.

**Companies for internship and graduate employment**: the institutions and subdivisions of RFNC VNIIEF, “Systema”, “Measurement technologies” and other enterprises of the city of Sarov.