**Bachelor’s Degree Program**

**13.03.01 Heat Power and Heat Engineering**

**Field of study**: Thermal Power Plants

**Program goals:** higher education, enabling graduates to work successfully in the sphere of activities related to the power system and heat engineering, functional and structural materials and technologies of reception and processing of materials, possess universal and subject-specialized competencies, promote social mobility and stability in the labor market.

**Duration of training:** Full-time form of training - 4 years.

**Basic department**: Atomic Energy, **VETI NRNU MEPhI**.

**Field of professional activity:** study, design, construction and operation of the technical facilities for heat production, its use, its management flows and transformation of other forms of energy into heat; installation and commissioning, operation and maintenance, repair and modernization of technical equipment for the production of heat, its use, its management flows and transformation of other forms of energy into heat.

**Objects of professional activity:** machines, plants, engines and machines for production, transformation and consumption of different forms of energy, including: steam and hot water boilers and waste heat boilers; steam generators; combustion chambers; nuclear reactors and power plants; steam and gas turbines and engines; steam turbines; combined installations; heat exchangers; hydraulic turbines and reversible hydraulic machines; power pumps; hydrodynamic transmissions; hydropneumatic units; hydraulic and pneumatic actuators; hydropneumosystems combined management of energy facilities; means of automation of power plants and systems; power plants based on alternative and renewable forms of energy; fans, blowers and compressors; actuators, energy systems and the operation of machinery controls, plants, engines, vehicles and complexes with various forms of energy conversion; accessories, allowing operation of energy facilities; technology and equipment for the power engineering industry.

**Curriculum features:** the main feature of the educational process is physical and mathematical and engineering training, which allows to master the main basic and special disciplines. Graduates of the training areas are ready for a wide range of applications such as design, construction, testing, commissioning, maintenance, operation and repair of heat and power equipment and systems.

**The list of enterprises for practical training and graduate employment:** JSC "Concern Rosenergoatom" "Rostov Nuclear Power Plant", JSC "Concern Rosenergoatom" "Rostov nuclear power plant," Rostov branch "Rostovatomtekhenergo" JSC "Atomtekhenergo", “Volgodonsk Interdistrict Electric Networks” the branch of JSC “Donenergo” (VIEN), LLC "LUKOIL-Rostovenergo", LLC "LUKOIL-Ekoenergo”, “Donenergomontazh” the branch of CJSC “Sezam”, Municipal unitary enterprise "Volgodonsk municipal electric network" (MUE VMEN), “Atommash” the branch of JSC “AEM Technologies” (Volgodonsk), JSC "Concern Rosenergoatom" "Leningrad NPP", JSC "Concern Rosenergoatom" "Smolensk NPP", JSC "Concern Rosenergoatom" "Kalinin NPP ", JSC "Concern Rosenergoatom» «Novovoronezh NPP", JSC "Concern Rosenergoatom" "Kursk NPP ", JSC "NIAEP", LLC "EnergomashKapital