Electric Physics, Devices of Electric Physics

National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)

Degree or qualification is awarded: Researcher. Lecturer-researcher

Language of study: Russian, English

Mode of study: **full-time**

Duration: 4 years

Availability of free education: **yes** Price: **325 000 rubles per year**

Programme curator: Professor Shikanov A.E.

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Basic depatment: Electric & Physic devices (№14)

Program Objectives: target training for the organizations of the "Proryv project" in the framework of the federal target program "Nuclear power technologies of new generation for the period 2010 - 2015 and up to 2020" and the "Innovation Development Program of Rosatom."

Characteristics of the scope and objects of professional activity of future graduates: electrophysics, electrophysical facilities, including researches, design and exploitation of electrophysical facilities for scientific purposes and modern technologies, beam formation and behavior experimental and theoretical researches, researches of the beam interaction with different physical object and with other beams, design and construction of the RF devices. Electromagnetic striction. New beam-plasma and RF technologies research.

Objects of professional activity: electrophysical installations: plasma devices, plasma and charged particles flow, accelerating waveguides and cavities, electron and ion sources, electron systems for electrophysical installations, automatic control systems for electrophysical installations, neutrons and gamma-quants generators, mathematical models of the electromagnetic fields and charged particles trajectories generation in electrophysical facilities, superconducting elements for particle accelerators, laser systems and it's properties.

The base of industrial and/or scientific practice and imployment:

Organization of the State Corporation "Rosatom", the Joint Institute for Nuclear Research, Research Center "Kurchatov Institute"

Head of progam: Didenko A.N., member-correspondent RAS, professor, chief of chair "Electrofizicheskie ustanovki"

Specializations within this programme