Physics of Charge Particles & Accelerator Engineering

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 department: Electrophysical Facilities (№14)

Program objectives: training for the institutions of ROSATOM, RAS, NRC Kurchatov Institute, JINR and other Russian and foregn institutions specialized in fields of particle accelerators development and operation including new and developing mega-science accelerators.

Characteristics of the scope and objects of professional activity of future graduates: to develop the competences in the areas of professional activities as follows: research, development, construction & exploitation of new charge particles accelerators for scientifics reserch , industry & medicine. Experimental & theoretical researches of charge particls beams forming & dynamics, interraction with various physical objects & collective effects. Simulation & design of accelerators components. Design of new tecnologes of beams application (radiation technologies).

Objects of the professional activity: charge particles accelerators for scientific researche, tecnological & medical accelerators, colliders, accelerators of intense beams, generators of bremsstrahlung and X-ray, ion plasma emitters, electron plasma & solid- state emitters, mathematical & physical modeling of charge particls bunches & forming systems.

The base of industrial and/or scientific practice and employment: ROSATOM institutions, NRC Kurchatov institute, Joint Institute for Nuclear Research.

Head of progam: Didenko A.N., Corresponding member of RAS, Dr.Sci., Professor, Head of Electrophysical Facilities Department

Specializations within this programme