

Theoretical Electrical Engineering

Far Eastern Federal University

Degree or qualification is awarded: **Candidate of Sciences**

Language of study: **Russian**

Mode of study: **full-time, part-time**

Duration: **4 years**

Availability of free education: **yes**

Price: **320 000 rub per year (full-time) / 160 000 rub per year (part-time)**

Programme webpage at the university website:

<https://www.dvfu.ru/upload/medialibrary/a06/%D0%9F%D0%B5%D1%80%D0%B5%D1%87%D0%B5%D0%BD%D1%8C%D0%BF%D1%80%D0%BE%D0%B3%D1%80%D0%B0%D0%BC%D0%BC%20%D0%B0%D1%81%D0%BF%D0%B8%D1%80%D0%B0%D0%BD%D1%82%D1%83%D1%80%D1%8B,%20%D0%BE%D0%B1%D1%8A%D1%8F%D0%B2%D0%BB%D0%B5%D0%BD%D0%BD%D1%8B%D1%85%20%D0%B2%20%D0%BD%D0%B0%D0%B1%D0%BE%D1%80%202020%20%D0%B3%D0%BE%D0%B4%D0%B0.pdf>

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A scientific specialty that combines theoretical and experimental research on the analysis and mathematical interpretation of electromagnetic phenomena and processes in electrical, electric power and electrophysical devices and systems and establishes relationships between the parameters within which these phenomena and processes occur, including taking into account electromagnetic and environmental compatibility ...

Within the framework of the scientific specialty, methods are developed for calculating electromagnetic fields, modeling electromagnetic processes, methods of analysis, synthesis, diagnostics and identification of electrical circuits and electrodynamic systems, applied aspects of the integration of information technology and objects of electrical engineering, electrical power engineering, electrophysics.

In the applied aspect, on the basis of the established general laws, particular methods of analysis and synthesis of electrical engineering, electrophysics, devices and systems of electrical power engineering, automation, control systems, information measuring and computing technology are being developed.

Research Areas:

Experimental and computational studies of weak and strong electromagnetic fields in electrical, power, electrophysical, information, control and biological systems.

Experimental and computational studies of electrical, electronic and magnetic circuits.

Development of methods for analysis, synthesis, optimization and diagnostics of electromagnetic fields and electrical circuits.

Development of methods for mathematical modeling of non-electrical phenomena and processes using electromagnetic analogs.

Development of the foundations of the theory and methods of researching electrodynamic systems that integrate objects of informational and electrical nature.

Development of stands of devices and installations for experimental research of electromagnetic fields, electrical, magnetic and electronic circuits.

The goal of postgraduate studies is to train highly qualified scientific and scientific-pedagogical personnel capable of innovative activities in the field of science, education, culture, management, etc.

The main tasks of training a postgraduate student are: the formation of skills for independent research and teaching activities; in-depth study of the theoretical and methodological foundations of physical and mathematical sciences; improving philosophical training focused on professional activities; improving knowledge of a foreign language for use in scientific and professional activities; formation of competencies necessary for successful scientific and scientific-pedagogical work in this branch of science.

Period of study: full time – 4 years, part-time – 5 years

Specializations within this programme