

# Systems Analysis, Management and Information Processing (Information processing, management and mathematical modeling of complex intelligent systems)

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**

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**Basic department:** Department of Cybernetics (№ 22).

## Goals of the Program

The main objective of the post-graduate students' training is to educate advanced theoretical and practical skills and deeper understanding of the field of system analysis of complex applied objects of research. That includes: developing and applying methods of analysis, information processing, goal-oriented influence on objects of research. With respect to improving efficiency of research objects, subject to study are issues relating to analysis, modeling, optimization, improving management and decision making.

## Characteristics of the scope and objects of professional activity of future graduates

Area of expertise includes various fields in science, technology and pedagogy that encompass the problem range of the "Informatics and computer engineering" branch. Special attention is paid to advancing theoretical research, creating, deploying and using perspective, forward-looking systems, networks, complexes and mathematical support.

## Objects of the professional activity

Objects of professional activity: a selected area of scientific knowledge and scientific problems of interdisciplinary nature: computing machines, complexes and networks; software for computers and automated systems; mathematical, information, technical, software, ergonomic, organizational, legal support for automated, information, computational, design and management systems; high-performance computations and super-computer hardware; software and hardware development technologies.

## Brief description of the curriculum

A central role in the educational process is given to scientific research and preparing the text of the dissertation, which is conducted under guidance of prominent scientists. Together with their mentors, students participate in research projects in actual fields of fundamental and applied research. That helps students in developing skills in working as part of a team, generating new ideas, as well as being capable for independent scientific work. Scientific research plays an important part in the educational process, providing a setup in which students learn to search and analyse relevant information, and particular attention is paid to presenting results in a form of scientific review, paper or report, to preparing publications and to practical adoption of the results.

## The base of industrial and/or scientific practice and employment

JSC "NIKIET", FSUE VNIIA, NRNU MEPhI, FSUE RFNC - VNIIEF, Kurchatov Institute, IC, Yandex

## **Specializations within this programme**