

Advanced Diagnostic Systems

National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)

Degree or qualification is awarded: **Bachelor's diploma**

Language of study: **Russian**

Mode of study: **full-time**

Duration: **4 years**

Availability of free education: **no**

Price: **129 000**

Programme webpage at the university website:

https://eng.mephi.ru/content/public/uploads/files/Program/ba/physbio/12.03.04_advanced_diagnostic_systems.pdf

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Tel.:

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12.03.04 Biological Systems and Technologies

Advanced Diagnostic Systems

Department of Computer Medical Systems

We are ready to involve you into advanced and complex information and measurement software and hardware development for nuclear medicine and telemedicine.

We are able to offer traditionally profound and fundamental knowledge as a solid ground for future work with artificial intelligence systems that are intended to become an indispensable tool in the medical practice.

We are seeking for willing young people who want to dive into medical agenda and develop modern devices to help doctors and patients be healthier and live longer!

Key research and professional activities:

- Development of methods and instruments of digital image processing for medical diagnostics
- Software and hardware development of an intelligent decision support system (IDSS) for medical applications
- Development of methods and protocols with extensive use of artificial intelligence (AI) techniques for medical diagnosis and therapy
- Design and implementation of networks for remote medical consultations at rural areas
- Development of medical training systems
- Software development for information-gathering complexes

Computer systems of clinical diagnostics for medical applications: histology, cytology, hematology, bacteriology, immunology, radiology, tomography, ultrasound and radioisotope diagnosis, endoscopy, electrocardiography

Artificial intelligence systems (pattern recognition, knowledge base, expert systems) in medicine, telemedicine and nuclear medicine

Practical training and employment opportunities:

- Blokhin National Medical Research Centre of Oncology of the Ministry of Health of the Russian Federation
- Burdenko Neurosurgery Institute
- Bach Institute of Biochemistry of the Russian Academy of Sciences
- Clinical hospitals of Federal Medical and Biological Agency of Russia
- Large multinational corporation and their subsidiaries (General Electric Healthcare (Russian Branch), Philips)

Specializations within this programme