

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY MISIS
(NUST MISIS)

Division of International Affairs
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Science, technology and
devices based on magnetic
nanostructures

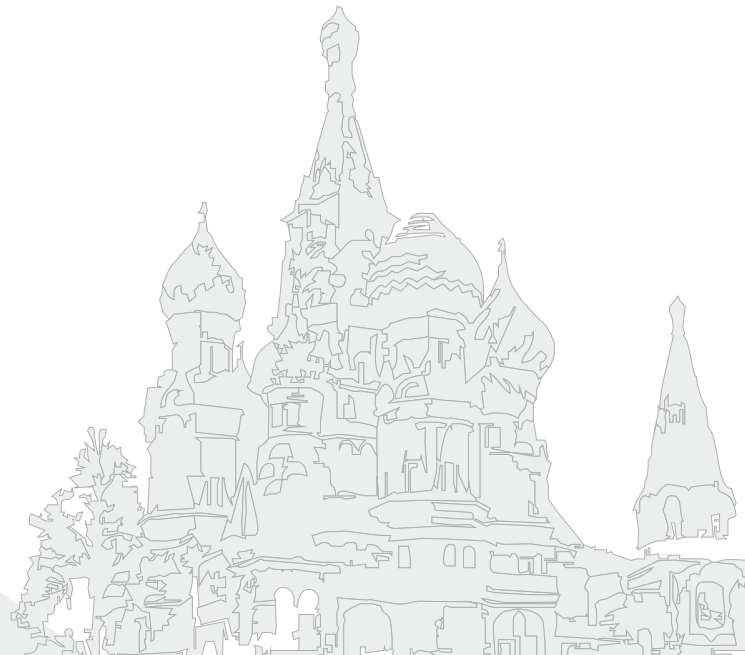
Nanostructured carbon
materials and multiphase
polymer nanocomposites

Embedded systems and
software engineering

Highlights

- Nanoscale science and fundamental concepts in nanotechnology
- Micro- and nano-fabrication and structural characterization
- Magnetic nanosystems , nanoparticles, multilayers for spintronics
- Semiconductor device physics and technology, carbon nanomaterials
- Micro- and nanosensor technology

<http://en.misis.ru/academics/programs/>



Advanced Materials Science

Advanced Metallic Materials and
Engineering

Communications and International
Public Relations

Computer Vision

Inorganic Nanomaterials

Multicomponent nanostructured
coatings. Nanofilms

NANOTECHNOLOGY AND MATERIALS FOR MICRO- AND NANOSYSTEMS

Quantum Physics for Advanced
Materials Engineering

Science and Materials of Solar
Energy

Welcome



Welcome to the National University of Science and Technology MISiS!

Here you will receive a highly competitive education and practical skills as well as enjoy the friendly and enthusiastic atmosphere of students and a young researcher community. In addition to your studies, you can participate in the numerous exciting extra-curricular activities we offer: sports, theater, music, and more.

We are located in the very heart of Moscow – close to all of its wonders and cultural treasures, granting you convenient access to the historic places of Tolstoy and Dostoyevsky. Plus, intensive Russian language courses are included in our master's programs to help you get the most from your stay and studies in Russia.

Faculty

Prof. Larissa V. Panina, PhD



Joined the National University of Science and Technology (MISIS) in 2013 bringing with her growing international activity on giant magnetoimpedance, magnetic sensors and tuneable magnetic wire media. She is a member of advisory committees for major international conferences in her area of research. She has published more than 130 peer-reviewed journal papers, 6 specialised book chapters, and has given 18 invited lectures at international conferences. Previous appointments: Plymouth University, United Kingdom; Nagoya University, Japan

Prof. Sergey Marenkin, D.Sc.

Joined the National University of Science and Technology (MISIS) in 1995, has supervised 11 PhD students and over 60 BSc and MSc students. Research interests include materials of electronics and spintronics, magnetic nanogranular structures, growth crystals and semiconductor films. He has published more than 250 peer-reviewed journal papers, 2 specialised books, and given 8 invited lectures at international conferences. Honors and Awards: State Prize USSR 1987, Memorial Medal of N.S. Kurnakov 2014, N.N. Semenov 2013, S. P. Korolev 1993, IENA 2007, Gold Medal, Ideas-Inventions-Innovations, Nuremberg, Germany. Prize of Russian and Polish Academies of Sciences for the best cycle of cooperation works, 2014. Previous appointments: Institute of Physics, Warsaw (Poland); University of Lappeenranta (Finland).



Associated Prof. Vladimir V. Kozlov, PhD, D.Sc.



Research interests include metal-polymer and semiconductor-polymer nanocomposites; carbon nanomaterials; metal-carbon and semiconductor-carbon nanocomposites; heterogeneous-reaction kinetics; and nanomaterial synthesis. Honorable Diplomas: Iena 2009. Nuremberg, Germany. Silver Medal; XIII Moscow International Exhibition of Inventions and Innovation Technologies "Archimed-2010". Silver Medal. 2010. Moscow. Russia; 21st International Invention, Innovation & Technology Exhibition ITEX 2010. Gold Medal. 2010. Kuala Lumpur. Malaysia. Additional employment: Leading Scientist, A. V. Topchiev Institute Petrochemical Synthesis, Russian Academy of Science (RAS)

Program

This two-year master's degree program is prepared by the academic team from the College of New Materials and Nanotechnology, Department of Technology for Electronic Materials. The program is devoted to the study of micro- and nano-scale phenomena, materials, and devices. It gives students solid foundation in three core areas: nanomaterial fabrication and characterization; physical properties of micro and nanostructure; and devices. The program includes compulsory foundational courses along with elective courses focusing on specific materials and devices. Primary thematic areas included in the program are:

- Nanoscale science and Fundamental concepts in nanotechnology
- Modeling and simulation
- Nanofabrication and Structural characterization
- Magnetic nanosystems and nanoparticles
- Materials and devices for spintronics
- Semiconductor device physics and technology
- Technology of carbon nanomaterials
- Embedded systems and software engineering
- Micro and nanosensor technology

New materials and devices included in this program are based on the original research works of the present academic team. Among them are nanostructured carbon and metal-polymer metamaterials, microsensors based on amorphous magnetic microwires, magneto-ellipsometry methods of magnetic multilayer characterisation.

Skills and Career Opportunities

The ultimate goal of the program is to prepare students for working in emerging high tech industries or research laboratories that exploit nano- and micro-scaled materials and systems of various functionalities.

The students will also understand the potential for technology commercialization and its social impact.