Novosibirsk State Technical University

International Relations Office



Directory of Research Supervisors

For prospective foreign Graduate and Post graduate students and Probationers 2009 -2010

Vol. 1

Novosibirsk 2009

Given directory provides information on Research supresearch work and thesis on different disciplines includifields.	
The information in the directory is aimed at citizens of for graduate students of foreign institutions of higher leafurther higher education in PhD, Masters Programs an University.	arning, who wish to carry on their

Message from the Rector



Choosing a university is not as easy as it sounds especially in today's competitive world when choosing a university and getting a quality education in accordance with our efforts, dreams and aspiration is of utmost importance.

Novosibirsk State Technical University, one of the largest research and educational centers of Russia, was established in accordance with the USSR Council of Ministries' Decree of 19 August 1950. The University has 11 faculties and two institutes: Institute of Social Rehabilitation and Institute of Distant Education, 73 departments, 4 branches and 9 NSTU representative offices. At present 16180

students, including 10,483 full-time and 400 international students are receiving quality education at NSTU.

Teaching staff consists of 968 full-time and 216 part time lecturers including 184 Professors, D.Sc. 762 Associate Professors, and Candidates of Science. Research scientists at NSTU pursue fundamental and applied research in various directions and fields of Science and Engineering; besides this a good number of teaching staff has the ability to deliver lectures in English and French languages

Besides all these established facts there are many reasons to study at NSTU, such as

- Several possible modes of study,
- University's partnerships with industry, commerce and the state sector
- A wide choice of faculties and educational programs which we try to keep relevant and up-to-date.

I would be very pleased to welcome you to NSTU and wish you fruitful and successful studies.

Prof. Dr.Nikolay V. Pustovoy Rector, NSTU.



A multi level education system is practiced at NSTU and specialists are prepared at 11 faculties:

- FACULTY OF AUTOMATION AND COMPUTER ENGINEERING.
- FACULTY OF BUSINESS.
- FACULTY OF HUMANITIES.
- FACULTY OF PHYSICAL ENGINEERING.
- FACULTY OF JURISPRUDENCE.
- FACULTY AIRCRAFT BUILDING.
- FACULTY OF APPLIED MATHEMATICS AND INFORMATICS.
- FACULTY OF ELECTROMECHANICAL ENGINEERING.
- FACULTY OF RADIO ENGINEERING, ELECTRONICS AND PHYSICS.
- FACULTY OF MECHANICAL ENGINEERING.
- FACULTY OF POWER ENGINEERING

We invite nationals of CIS and other countries with the knowledge of **ENGLISH** or **RUSSIAN** languages to Graduate and Post Graduate courses and for Research probation.

Program durations:

Master's program - 2 years after obtaining Bachelor degree **Postgraduate program PhD** - 3 years after obtaining Master's degree

An academic year consists of 2 semesters, which start on 1^{st} of September and 1^{st} of February.

*Application for internship/probation needs to be agreed upon with the Research Supervisor of the concerned branch.

For more detailed information on admission procedures, educational programs, accommodation, medical services, fees and costs please visit our university website at http://www.nstu.ru or write to inter@inter.nstu.ru

Our Address:

Novosibirsk State Technical University 20, Karl Marx Avenue, Novosibirsk Russia, 630092 www.nstu.ru.

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E-mail-inter@inter.nstu.ru

Dr. Dimitry Voronin



Faculty:

Qualifications:

- PhD, Institute of Hydrodynamics, Siberian Branch, Russian Academy of Sciences.(1986)
- D.Sc Siberian Branch, Russian Academy of Sciences (2007)

Research fields and Interests:

- Mathematical modulation of processes in multi phase mediums;
- Detonation and burst in heterogeneous systems.

Research enrollment fields:

Numerical modulation of wave like processes in gas-liquid systems and gas-liquid-solid phases.

Intake: M.Sc and PhD.

Prerequisites: Knowledge of Russian, English or French.

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Dr.Victor Kuznetsov



Faculty: Aircraft building

Qualification:

• D.Sc, Moscow Aviation Institute, 1994.

Research fields and interests:

Mechanics of deformable solid bodies. Kinematics, Modern methods of ending elements.

Research enrollment fields: Invariant mechanics, solutions and methods of solving non-linear mechanical problems, Mathematical models of deforming bodies.

Intakes: M. Sc and PhD.

Prerequisites: Knowledge of Russian language and

Technical English.

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Profile

Dr. Veniamin Maximenko



Faculty: Aircraft Building

Qualifications:

• D.Sc,Institute of Hydrodynamics,Siberian Branch, Russian Academy of Sciences.

Research fields and interests: Mechanics of deforming solid bodies, Robustness of flying objects.

Research enrollment fields: Integral equations, methods

and solutions; Robustness, damages and resource constructions, Mechanics of composite materials.

Intake: M.Sc and PhD.

Prerequisites: Knowledge of English language

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Dr.Boris Reznikov



Faculty:

Qualifications:

• PhD,Institute of Hydrodynamics,Siberian Branch of Russian Academy of Sciences(2000)

Research fields and interests:

 Mechanics of composite materials and constructions of such materials.

Research enrollment fields:

- Prognosis of macroscopic characteristics of heterogeneous structural environments.
- Research/study of strained-deformed states.
- Efficient projection of thin walled constructions of anisotropic materials.

Intake: M.Sc and Phd.

Prerequisites: Knowledge of Russian language,

E-mail: kimt@ngs.ru **Tel.**: +7 (383) 346 07 33 **Fax.**: +7 (383) 346 02 09

Prof.Dr.Anatoly Vostrikov



Faculty: Automation Qualifications:

- Dipl. Eng., Samara State Technical University (1963).
- Phd., Ural State Technical University(1968).
- Postdoctoral., Institute of Control Problem of RAS (1983).

Research fields and Interests:

- Method of Localization in the synthesis problem of automatic control systems,
- The control Problem of nonlinear dynamic objects.

Research enrollment fields:

Intake: M.Sc., PhD and Postdoctoral students.

Prerequisites: English or Russian.

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Prof.Dr. Andrey Gavrilov



Faculty: Automation of manufacturing processes in machine building.

Oualifications:

- Dipl. Eng., Novosibirsk Institute of Electrical Engineering (1974)
- PhD, Institute of Mathematics, Siberian Branch of USSR Academy of Science

Research fields and interests:

Artificial Intelligence; Hybrid Intelligent Systems;

Artificial Neural Networks and its applications; Natural Language Processing and Cognition; The architecture of the Hybrid Expert Systems and Shells; Machine learning; Intelligent Mobile Robots; Ubiquitous computing and smart collaborative objects.

Research enrollment fields:

- Hybrid Intelligent Systems for Intelligent Robots.
- Hybrid Neural Networks (Computer Science).

Intake: M.Sc., PhD students (1)
Prerequisites: Knowledge of English
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Prof. Dr. Victor Malyshkin



Faculty: Dept. of Applied Mathematics and Informatics **Qualification:**

- Master of Sciences, Mathematics, Tomsk, State University, 1970
- Ph.D. in Computer Science, from Russian Academy of Sciences, 1984
- D.Sc in Computer Sciences, Novosibirsk State University, 1993.

Research fields and interests:

Parallel computing technologies, parallel programming languages and systems, Parallel program synthesis, large scale supercomputer applications.

Research enrollment fileds:

Technologies of parallel programming; languages and systems of parallel programming; methods, algorithms and tools of application parallel programs construction

Intake: M.Sc, PhD. Prerequisites:

- good Russian and/or English,
- good experience in programming
- good grades in Mathematics,
- to have courses in Math. Logics, operating systems, programming languages and systems
- to know the basic notions of the set theory, theory of algorithms, computer science models
- Knowledge of English language.

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Ms.Elena Melekhina, Cand.of Sc.(Pedagogy) Associate Professor



Faculty: Humanities Oualifications:

- Diploma of Philologist and Interpreter, Kemerovo State University (1983).
- Cand.of Science (2004).

Research fields and interests:

- Methodology of Teaching English for Specific Purposes. Teachers' Professional Development.
- Goal-Setting in Language Learning.

Research enrollment fields:

Methodology of Teaching English for Specific

Purposes

Intake: M.A., PhD (1),

Prerequisites: Knowledge of English language.

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Faculty: The Aircraft Faculty, The Department of Engineering problems of Ecology

Qualification:

- Dipl. Chemist, Omsk State University (1997)
- PhD, Boreskov Institute of Catalysis (2005)



 Heterogeneous catalysis and membrane technologies for environmental applications

Research enrollment fields:

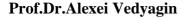
• Purification of the waste gases using the catalytic membrane reactors

Intake: M.Sc., PhD.

Prerequisites: Knowledge of English language.

E-mail: vedyagin@catalysis.ru

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Prof.Dr.Vladimir Larichkin,



Faculty: The Aircraft Faculty, The Department of Engineering problems of Ecology.

Qualifications:

- Dipl. Eng., Tomsk State University (1972).
- PhD, Siberian Branch, Russian Academy of Sciences Khristianovich Institute of Theoretical and Applied Mechanics (2003).
- Doctor of Engineering Sciences.

Research fields and interests:

Industrial ecology, environmental quality monitoring, conservancy, anthropogenic waste utilization, waste-water and ambient air treatment technologies

Research enrollment fields:

- Novel materials based on anthropogenic waste.
- Catalytic methods of environmental protection

Intake: M.Sc., PhD (1)

Prerequisites: Knowledge of Russian or English language.

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Dr.Ilya Mishakov



PROFILE

Faculty: Engineering problems of Ecology **Oualifications:**

- Qualifications:Dipl. Chemist, Novosibirsk State University (2000)
 - PhD, Boreskov Institute of Catalysis (2002)

Research fields and interests:

• Heterogeneous catalysis for environmental applications

Research enrollment fields:

• Catalytic processing of chlorinated hydrocarbons into nanostructured carbon materials.

Intake: M.Sc., PhD (1)

Prerequisites: Knowledge of English language.

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Prof.Dr.Vladimir Chesnokov.



Faculty: The Aircraft Faculty, The Department of Engineering problems of Ecology

Qualifications:

- Dipl. Chemistry, Novosibirsk State University (1975)
- Doctor of chemistry, Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia (1999)

Research fields and interests:

Catalysis, production of nano materials, carbon nanotubes, carbon nanofibers, production of hydrogen from hydrocarbons, catalytic selective hydrogenation of hydrocarbons

Research enrollment fields:

• Selective hydrogenation of acetylene on palladium/carbon nanotubes catalysts.

Intake: M.Sc., PhD students (1)

Prerequisites: Knowledge of English language.

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Fax: +7-383-330-8056

Prof.Dr.Alexander Aliferov

- Head of Department of Electro Technology
- Corresponding member of Russian Electrotechnical Academy.



PROFILE

Faculty: Mechatronics and Automatization.

- **Qualification:**
 - Dipl. Eng., Novosibirsk Institute of Electrical Engineering (1978).
 - Doctor of Science (1999).

Research fields and interets:

- Resources-saving and energy-efficient Electrotechnologies.
- Induction, resistance and arc heating

Research enrollment fields:

Resources-saving and energy-efficient Electrotechnologies. Induction, resistance heating

Intake: M.Sc., PhD students.

Prerequisites: Knowledge of English language. **E-mail:** alif@aetu.emf.nstu.ru, alif@ngs.ru

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Prof.Dr.Gennady Zinoviev

- Member-correspondent of Electro technical Science Academy of Russia.
- Member-correspondent of High School Academy of RF.
- Awarded "The Excellent Inventor of Russia".
- Awarded "The Excellent Worker of high education of Russia".



Faculty: Radio-Physics and Electronics.

Qualification:

- Dipl. Eng., Novosibirsk Institute of Electrical Engineering (1961)
- PhD, Novosibirsk Institute of Electrical Engineering (1967)
- D.Sc., Institute of Electrodynamics, Academia of science of Ukraine, Kiev (1988)

Research fields and interests:

Common Problems of Electric Power Conversion, PFC, EMC, Quality of Electrical Energy, Theory of Power, VSI (Cycloconverter and Matrix Converter) Electric Drive with Induction Machine, Power Converters for Energetic and Railway Transport, Tutor for Power Electronics.

Research enrollment fields:

Common Problems of Electric Power Conversion, PFC, Quality of Electrical Energy, VSI (Cycloconverter and Matrix Converter) Electric Drive with Induction Machine, Power Converters for Energetic and Railway Transport, Tutor for Power Electronics.

Intake: Bachelor, M.Sc., PhD students

Prerequisites: Knowledge of English language.

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Dr.Igor Balagansky



Profile

Faculty:

Qualification:

- Dipl. Eng., Bauman State Technical University, Moscow (1975)
- PhD, Central Research Institute of Chemistry and Mechanics, Moscow (1984)
- DSc, Bauman State Technical University, Moscow (1998)
- Professor, Russian Ministry of Education, Moscow (1999)

Research interests and fields:

• Applied problems of explosion and impact physics

Research enrollment fields:

- High energy rate technologies
- Explosion protection

Intakes: Engg, M.Sc. and PhD.

Prerequisites: Knowledge of English language.

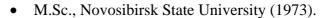
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Dr.Sergey Korobeynikov



Qualifications:



- Ph.D., Siberian Research Institute of Power Engineering (1983).
- D.Sc, Tomsk Research Institute of High Current Electronics (1998).

Research fields and interests:

- High voltage engineering.
- Liquid dielectrics, breakdown.

Research enrollment fields: Pre-breakdown processes in liquids, conduction and breakdown in dielectric liquids, new vegetable dielectrics.

Intake: PhD

Prerequisites: Knowledge of English languauge.

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Prof.Dr.Aleksey Vostretsov



PROFILE

Faculty:

Qualification:

- Dipl.Engg., Novosibirsk Institute of Electrical Engineering (1977)
- PhD, St.Petersburg State Electrotechnical University (1983)
- Dr.Sc., Novosibirsk State Technical University (1998)

Research fields and interests:

• Telecommunications, Radars, Radio navigation

Research enrollment fields:

- Detection and recognition of signals
- Interference suppression
- Mobile systems of data transfer

Intake: M.Sc., PhD (1)

Prerequisites: Knowledge of English language.

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Dr.Yuriy Morozov



Faculty: Radio Engineering and Electronics **Qualification:**

- M.Sc, Novosibirsk State Technical University (1997)
- PhD, Novosibirsk State Technical University (2004)

Research fields and interests:

- Virtual instrumentation technology in Radio Engineering,
- Digital wireless communications (Wi-Fi, DVB-T).

Research enrollment fields:

• Non-linear distortions correction of power amplifiers in digital video broadcasting

Intake: M.S and Probationers.

Prerequisites: Knowledge of English language.

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Dr.Aelita Nikulina



PROFILE

Department: Material Sciences and Machine Building **Qualification:**

- Dipl. M.Sc., Novosibirsk State Technical University (2003)
- PhD, Novosibirsk State Technical University (2007)

Research fields and interests:

Material Sciences.

Research enrollment fields:

- Dissimilar material welding.
- Structural and mechanical properties of materials.

Intake: M.Sc.

Prerequisites: Fluent English **E-mail:** _aelita27@mail.ru **Tel.:** +7 (383) 315-29-01; **Fax:** +7 (383) 346-06-12

Dr. Natalya Plotnikova,



Faculty: Material studies in Machine building Oualifications:

- Dipl. M.Sc., Novosibirsk State Technical University (1998)
- PhD, Novosibirsk State Technical University (2004)

Research fields and interests:

Material Sciences

Research enrollment fields:

- Structure.
- Mechanical properties of materials.
- Strengthening of carbon steels.
- Heat treatment.

Intake: M.Sc.

Prerequisites: Knowledge of English language.

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Prof.Dr.Galina Litvintseva.



Faculty: Business. **Qualifications:**

- Dipl. Economist-mathematician, Novosibirsk State University (1977)
- PhD(Macroeconomics), Novosibirsk State Architectural University (2004)

Research fields and interests:

- Macroeconomics.
- Institutional Economics and Economic Policy, Business.

Research fields and interests:

- Institutional Economics and Economic Policy.
- Macroeconomics.

Intake: M.Sc., PhD (1)

Prerequisites: fluent English or Russian

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Dr.Oleg Lyamzin



Faculty: Business

Qualification:

- Dipl. Engg., Novosibirsk State Technical University(1993)
- PhD Novosibirsk State Technical University

(1997)

Research fields and interests:

- Strategic management,
- Marketing, Marketing communications,
- Multi-sectoral integrated structures based on innovations
- Territorial clusters

Research enrollment fields: Concepts and methods of forming the multi-sectoral integrated structures based on innovations and territorial clusters

Intake: M.Sc., PhD.

Prerequisites: Knowledge of English language.

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Prof.Dr.Vladimir Ignatyev

Faculty: Humanities, Department of Sociology

Qualifications:

• D. Sc (Phil.) (1997), Novosibirsk State University (1978)

Research fields and interests:

- Social structure and stratification.
- Power and inequality,
- Social informatization,
- Regionalistics.

Research enrollment fields:

Sociology: social processes and structura, globalization, social nets.

Intake: PhD.

Requirement: fluent English **E-mail:** <u>ignat@fgo.nstu.ru</u> **Tel.:** + 7 (383) 346 04 66 (off.) + 7 (383) 266 77 25 (home) + 7 913 728 47 89 (mob.)

Fax: + 7 (383) 346 04 66

Dr.Anna Gouschina



- Dipl. Eng., Novosibirsk Institute of Electrical Engineering (1977)
- PhD, Tomsk State University (2006)

Research fields and interests:

International educational and scientific cooperation; interuniversity cooperation development, educational reforms (EC, Russia, APR)



Historical aspects of international interuniversity cooperation (education&science)

Intake: M.Sc., PhD (1) **Prerequisites:** fluent English

E-mail: <u>Anna.Goushina@inter.nstu.ru</u> **Tel.:** +7 (383) 346 27 10; 346 00 73

Fax: +7 (383) 346 02 09



Prof.Dr.Evgeny Tsoy



Faculty: Applied Mathematics **Qualifications:**

- Ph.D, Novosibirsk State Technical University, Novosibirsk (1979)
- D.Sc, Novosibirsk State Technical University, Novosibirsk (1997)

Research fields and interests:

- Designing of Man-Machine systems.
- Automated contril systems.
- Statistical data processing.

Research enrollment fields:

- Optimal designing of Man-Machine systems.
- Function allocation between human and technology.
- Man-Machine decision taking systems.

Intake: M.Sc., PhD (1)

Prerequisites: fluent English

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