



IFOST

PROGRAM

2016 11th International Forum on Strategic Technology (IFOST)

June 1-3, 2016
Novosibirsk, Russia

Organized by:

Novosibirsk State Technical University (Russia)

In association with:

Tomsk Polytechnic University (Russia)

University of Ulsan (Korea)

Harbin University of Science and Technology (China)

Mongolian University of Science and Technology (Mongolia)

Chittagong University of Engineering and Technology (Bangladesh)

Scientific sections:

Section 1. New materials and nanotechnologies

Section 2. Information and communication technologies

Section 3. Mechatronics, electrical engineering and power electronics

Section 4. Robotics and Automation

Section 5. Power engineering and renewable energy technologies

Section 6. Ecology, environment engineering, civil engineering

Section 7. Humanitarian and economical aspects of engineering sciences

Section 8. Applied engineering

CONTENT:

WELCOME ADDRESS FROM RECTOR OF NSTU.....	2
IFOST-2016 COMMITTEES.....	4
GENERAL PROGRAM.....	7
PROGRAM OF SCIENTIFIC SECTIONS.....	8
<u>SECTION 1: NEW MATERIALS AND NANOTECHNOLOGIES</u>	
NEW MATERIALS AND NANOTECHNOLOGIES.....	8
CHEMICAL TECHNOLOGIES.....	13
<u>SECTION 2: INFORMATION AND COMMUNICATION TECHNOLOGIES</u>	17
<u>SECTION 3: MECHATRONICS, ELECTRICAL ENGINEERING AND</u>	
POWER ELECTRONICS.....	24
<u>SECTION 4: ROBOTICS AND AUTOMATION</u>	
ROBOTICS AND CONTROL.....	27
MEASURING, IDENTIFICATION AND HEURISTICS.....	28
<u>SECTION 5: POWER ENGINEERING AND RENEWABLE</u>	
ENERGY TECHNOLOGIES.....	29
<u>SECTION 6: ECOLOGY, ENVIRONMENT ENGINEERING,</u>	
CIVIL ENGINEERING.....	34
<u>SECTION 7: HUMANITARIAN AND ECONOMIC ASPECTS</u>	
<u>OF ENGINEERING SCIENCES</u>	
ECONOMIC ASPECTS OF ENGINEERING SCIENCES.....	37
HUMANITARIAN ASPECTS OF ENGINEERING	
SCIENCES.....	38
HUMANITARIAN AND ECONOMIC ASPECTS	
OF ENGINEERING SCIENCES.....	39
<u>SECTION 8: APPLIED ENGINEERING</u>	
THERMAL SCIENCE AND TECHNOLOGY.....	41
APPLIED ENGINEERING.....	41
BIOENGINEERING AND TECHNOLOGIES FOR	
HUMANITY.....	43
APPLIED METHODS FOR ENGINEERING.....	43
 APPENDIX:	
MAP OF NSTU CAMPUS	
NOVOSIBIRSK METRO SCHEME	

WELCOME ADDRESS
from Rector of NSTU

Dear colleagues, guests and participants of the International Forum on Strategic Technology!

Ladies and Gentlemen!

On behalf of the international co-chairs and members of the Organizing Committee, on behalf of the Novosibirsk State Technical University administration and myself, I welcome you to Siberia, to the center of the Siberian science and innovation - Novosibirsk.

This year our International Forum on Strategic Technology IFOST is celebrating a little anniversary: 10 years ago, in October, 2006, the hospitable University of Ulsan hosted the first IFOST. It was attended by 58 representatives from different universities, and 120 reports were published then.

By human standards, 10 years is the age of a teenager. But our forum, having grown up over these years, is confidently spreading its wings: it has attracted new members - universities of Bangladesh, Indonesia and Malaysia (we also hope that our Vietnamese partner will return to us in the future). This year 487 scientific papers were submitted for the Forum. 288 publications will be submitted for the "Scopus". And I want to thank the members of the Technical Program Committee, who did a great job for the selection of the most interesting and important scientific papers that will be presented at our 11th International Symposium on Strategic Technology IFOST 2016.

This year, among the international participants of our Forum there are 36 representatives of the University of Ulsan (Republic of Korea), 11 representatives of the Harbin University of Science and Technology (PRC) and 30 representatives of the Mongolian University of Science and Technology. The delegation of Tomsk Polytechnic University, our old good friend and partner, consists of 50 people.

We are glad that these few days of June have brought together representatives of different scientific schools and directions, whose debates and discussions are a prerequisite for the development of science. For all of us it is important that these meetings and discussions give a stimulus to the establishment of joint international research groups and laboratories.

This will consequently become a springboard for a network of scientific and educational cooperation. Through joint research projects, joint supervision of our graduate and PhD students we will come to full-fledged double degree programs in those directions of training of future specialist, which would be vital and relevant for our countries. And the keystone of this network research and education partnership would be our Forum on Strategic Technology IFOST and its

sections that reflect the main priorities of scientific research in our countries.

I wish all the participants of the Forum a successful and fruitful work and an interesting dialogue with their international colleagues! Once again I would like to thank the members of the International Organizing Committee, Technical Program Committee, international and local advisory committees and all the staff members of our university, who not only have done a great job for the preparation of the 11th International Forum on Strategic Technology IFOST, but also put their hearts and souls into this work.



Anatoliy Bataev,

Professor, Dr.

Rector of Novosibirsk State Technical University,

General Chair of the 11th International Forum on Strategic Technology IFOST 2016

IFOST-2016 COMMITTEES

General Chair

Prof. Anatoliy Bataev, Rector, Novosibirsk State Technical University, Russia

General Co-Chair

Prof. Alexey Vostretsov, Vice-Rector for Research, Novosibirsk State Technical University, Russia

Prof. Evgeny Tsoy, Counselor to Rectorate, Novosibirsk State Technical University, Russia

Prof. Roman Ostvald, Deputy Vice-Rector for Research and Innovations, Tomsk Polytechnic University, Russia

Prof. Chi-Mo Park, Dean, College of Engineering, University of Ulsan, Korea

Prof. Jahangir Alam, Vice-Chancellor, Chittagong University of Engineering and Technology, Bangladesh

Prof. Zhaohui Xi, Director, Department of International Cooperation and Exchanges, Harbin University of Science and Technology, China

Prof. Baatar Ochirbat, President, Mongolian University of Science and Technology, Mongolia

Organizing Chairs

Ivan Bataev, Associate Professor, Department of Materials Science in Machine-Building, Faculty of Mechanical Engineering, Novosibirsk State Technical University, Russia

Ekaterina Chimitova, Associate Professor, Department of Theoretical and Applied Informatics, Faculty of Applied Mathematics and Informatics, Novosibirsk State Technical University, Russia

Vadim Zhmud, Head of Automation Department, Faculty of Automation and Computer Engineering, Novosibirsk State Technical University, Russia

Felix Byk, Associate Professor, Department of Automated Electric Power Systems, Faculty of Power Engineering, Novosibirsk State Technical University, Russia

Sergey Korobeinikov, Head of Department of Life Safety, Faculty of Power Engineering, Novosibirsk State Technical University, Russia

Marina Khairullina, Dean, Business Faculty, Novosibirsk State Technical University, Russia

Igor Korel, Dean, Faculty of Radio Electronics and Physics, Novosibirsk State Technical University, Russia

Nikolay Shchurov, Head of Department of Electrical Engineering Complexes, Faculty of Mechatronics and Automation, Novosibirsk State Technical University, Russia

Organizing Co-Chairs

In-Soo Koo, Vice Dean, College of Engineering, University of Ulsan, Korea

Kaushik Deb, Head of Department of Computer Science and Engineering, Chittagong University of Engineering and Technology, Bangladesh

Dorjderem Byambasuren, R&D Manager, Office of Research and Innovation Affairs, Mongolian University of Science and Technology, Mongolia

Yulia Falkovich, Coordinator for International Research, Science and Innovation Office, Tomsk Polytechnic University, Russia

Jiyong Jin, Department of International Cooperation and Exchanges, Harbin University of Science and Technology, China

Ik-Keun Yoo, Associate Professor, School of Chemical Engineering, University of Ulsan, Korea

Selo Sulisty, Manager, Gadjah Mada University, Indonesia

Organizing Secretary

Vadim Nekrasov, Acting Vice-Rector for International Relations, Novosibirsk State Technical University, Russia

Technical Program Committee

Darya Mul, Senior Lecturer, Department of Materials Science in Machine-Building, Faculty of Mechanical Engineering, Novosibirsk State Technical University, Russia

Darya Lazurenko, Associate Professor, Department of Materials Science in Machine-Building, Faculty of Mechanical Engineering, Novosibirsk State Technical University, Russia

Olga Lenivtseva, Associate Professor, Department of Materials Science in Machine-Building, Faculty of Mechanical Engineering, Novosibirsk State Technical University, Russia

Elena Lozhkina, Associate Professor, Department of Materials Science in Machine-Building, Faculty of Mechanical Engineering, of Novosibirsk State Technical University, Russia

Sergey Postovalov, Professor, Department of Theoretical and Applied Informatics, Faculty of Applied Mathematics and Informatics, Novosibirsk State Technical University, Russia

Vladislav Schekoldin, Associate Professor, Department of Marketing and Service, Business Faculty, Novosibirsk State Technical University, Russia

Yury Morozov, Associate Professor, Department of Theoretical Basics of Radio Engineering, Faculty of Radio Electronics and Physics, Novosibirsk State Technical University, Russia

Evgeny Prokhorenko, Head of Department of Data Collection and Processing Systems, Faculty of Automation and Computer Engineering, Novosibirsk State Technical University, Russia

Denis Kotin, Head of Department of Electric Drive and Automation of Industrial Plants, Faculty of

Mechatronics and Automation, Novosibirsk State Technical University, Russia

Anastasia Rusina, Professor, Department of Automated Electrical Engineering Systems, Faculty of Power Engineering, Novosibirsk State Technical University, Russia

Denis Armeev, Associate Professor, Department of Automated Electrical Engineering Systems, Faculty of Power Engineering, Novosibirsk State Technical University, Russia

Dmitry Pavlyuchenko, Head of Department of Industrial Power Supply, Faculty of Power Engineering, Novosibirsk State Technical University, Russia

Marina Legan, Associate Professor, Department of Life Safety, Faculty of Power Engineering, Novosibirsk State Technical University, Russia

Georgy Aseev, Associate Professor, Department of Life Safety, Faculty of Power Engineering, Novosibirsk State Technical University, Russia

Alexandra Korobenkova, Associate Professor, Department of Life Safety, Faculty of Power Engineering, Novosibirsk State Technical University, Russia

Nikolay Ilushov, Associate Professor, Department of Life Safety, Faculty of Power Engineering, Novosibirsk State Technical University, Russia

Mikhail Maslov, Associate Professor, Department of Economic Theory and Applied Economics, Business Faculty, Novosibirsk State Technical University, Russia

Dmitry Kolker, Professor, Department of Laser Systems, Faculty of Physical Engineering, Novosibirsk State Technical University, Russia

Yuri Dolgodvorov, Leading Engineer, International Service, Novosibirsk State Technical University, Russia

Svetlana Filatova, Associate Professor, Department of Theoretical Basics of Radio Engineering, Faculty of Radio Electronics and Physics, Novosibirsk State Technical University, Russia

International Advisory Committee (IAC)

Oleg Stukach, Head of Department of Computer Measuring Systems and Metrology, Tomsk Polytechnic University, Russia

Sodnomdorj Dari, Professor, School of Power Engineering, Mongolian University of Science and Technology, Mongolia

Local Advisory Committee (LAC)

Nadezhda Dvurechenskaya, Director of Center for Scientific and Innovation Activity, Siberian State University of Telecommunications and Informatics, Russia

GENERAL PROGRAM

Legend:

Group **A** – all IFOST participants (except NSTU participants)

Group **B** – IFOST participants from NSTU

Group **C** – IFOST Board of Directors

Group **D** – IFOST Sections chairs

Group **E** – Specially invited guests

Group **F** – MUST, UOU, HUST, other foreign participants

Date	Time	Group	Arrangement	Venue
June 1 We	9.00 – 10.00	A-E	Registration	NSTU 1 st Academic Building, Concert Hall (4 th floor),* Karl Marx prospect, 20
	10.00 – 12.00	A-E	Forum opening, plenary session, group photographing	NSTU 1 st Academic Building, Concert Hall (4 th floor), Karl Marx prospect, 20
	12.30 – 13.30	A, C, D, E	Lunch	Gorskiy City Hotel Dining Hall (2 nd floor), Nemirovitcha-Danchenko str., 144 a
	14.00 – 18.00	A-E	Sections work	See program of the sections
	18.30 – 20.30	A, C, D, E	Welcome party	Gorskiy City Hotel Conference Hall (6 th floor), Nemirovitcha-Danchenko str., 144 a
June 2 Thu	09.00 – 13.00	A-E	Sections work	See program of the sections
	13.15 – 14.15	A, C, D, E	Lunch	Gorskiy City Hotel Dining Hall (2 nd floor), Nemirovitcha-Danchenko str., 144 a
	14.30 – 18.00	A-E	Sections work	See program of the sections
	14.30 – 16.30	C	IFOST BoD meeting	NSTU 1 st Academic Building, office 316 (3 rd floor), Karl Marx prospect, 20
	17.00 – 18.00	F	Dinner	Gorskiy City Hotel Dining Hall (2 nd floor), Nemirovitcha-Danchenko str., 144 a
	18.30 – 20.00	A, D	Dinner	Gorskiy City Hotel Dining Hall (2 nd floor), Nemirovitcha-Danchenko str., 144 a
	19:00	F	Visit to Opera House (Ballet “La Bayadere”)	Opera House, Krasny Prospect, 36
June 3 Fri	09.00 – 13.00	A-E	Sections work	See program of the sections
	13.15 – 14.15	A, C, D, E	Lunch	
	14.30 – 18.00	A-E	Sections work	See program of the sections
	18.30 – 21.00	A, C, D, E	Closing Ceremony and Banquet	Azimut Hotel Siberia, Banquet Hall Lenin str.,21

* NSTU participants and lately comers can be registered directly at their Section venues

PROGRAM OF SCIENTIFIC SECTIONS

SECTION 1: NEW MATERIALS AND NANOTECHNOLOGIES

NEW MATERIALS AND NANOTECHNOLOGIES

Chair: Ivan A. Bataev (NSTU)

Date: 01.06.2016

Venue: NSTU Building I, 2nd floor, Conference hall

№	Time	Report	Author (*Speaker)
	14-00 14-10	Section opening	Bataev I.A.
1	14-10 14-30	Polarized Scattering Property of One-dimensional Gold Nanowires	Ji Won Ha
2	14-30 14-50	The Effect of Layer-by-layer Laser Sintering on the Quality of Copper Powder Sintered Surface Layer	Natalia Saprykina*, Alexander Saprykin and Dasha Arkhipova
3	14-50 15-10	A study on the defect detection of automobile parts by measuring the thermal image data	Jae Jin Koh* and Heejong Yang
4	15-10 15-30	Microstructures and Properties of SUS316L Samples Produced by Selective Laser Sintering Process	Won Joo Kim, Ho Yoon Kim, Sang Hyup Lee, Minh Thuyet Nguyen, Hong Hai Nguyen, Jin Chun Kim* and Hong Seok Park
5	15-30 15-50	Influence of the content of manganese on the properties of the modified aluminum oxyhydroxide	Elena Gryaznova* and Ludmila Shiyan
	15-50 16-20	Coffee-break	
6	16-20 16-40	Study on the Molding Mechanism of Straw Board Density with FEM	Pengqiang Fu, Yunzhi Zhang, Liang Zhou, Jianghua Ge and Di Xu
7	16-40 17-00	Analysis of the influence of the temperature effect at the state of the initial destruction of layered composites	Oxana Sheremet* and Boris Reznikov
8	17-00 17-20	Fabrication of alloyed nickel aluminides	Anastasia Medneva
9	17-20 17-40	Adhesion properties of a three-layer system based on RF-magnetron sputter deposited calcium-phosphate coating and silver nanoparticles	Mikhail Tkachev*, Evgenii Melnikov, Maria Surmeneva, Anna Sharonova, Ivan Shulepov, Matthias Epple, Kateryna Loza and Roman Surmenev
10	17-40 18-00	Investigation of physico-mechanical characteristics of 3D scaffolds manufactured by electron beam melting	Ekaterina Chudinova*, Maria Surmeneva, Andrei Koptioug, Per Skoglund and Roman Surmenev

Date: 02.06.2016

**Venue: (09.00 – 13.00) – NSTU building I, 2nd floor, Conference hall
(14.30 – 18.00) – NSTU building II, room № 505**

№	Time	Report	Author (*Speaker)
	9-00 9-10	Section opening	Bataev I.A.
1	9-10 9-30	Deformation Behavior of PLA Products with Changing of Temperatures of 3D Printer	Ho Yoon Kim, Won Joo Kim*, Sang Hyup Lee, Minh Thuyet Nguyen, Hong Hai Nguyen, Jin Chun Kim*, Young Hyuk Kim and Young Soo Kim
2	9-30 9-50	Nanopowdered Modifiers in Improving a Protective Coating System	Chang-Myung Lee, Vladimir Goverdovskiy and Sergey Bardakhanov*
3	9-50 10-10	The application of carbon nanotubes for enhancement of the epoxy thermoelectret properties	Alexander Bannov*, Alexander Shibaev, Ekaterina Mochalova, Mansur Galikhanov, Natalia Limarenko and Rinna Vakhitova
4	10-10 10-30	The ultra-small nanoparticles physical properties as a reserve for new technological approaches	Alfred Chernyshev
	10-30 11-00	Coffee-break	
5	11-00 11-20	Complex Analysis of Various Multiphase Composite Parameters Effect on Effective Characteristics	Albina V. Gobysh* and Boris S. Reznikov
6	11-20 11-40	Inter-Particle Interactions in Partially Densified Compacts of Electrically Conductive Materials during Spark Plasma Sintering	Dina Dudina, Arina Ukhina, Andrei Brester, Vyacheslav Mali, Alexander Anisimov and Boris Bokhonov
7	11-40 12-00	Interaction of domain wall with magnetic fields and acoustic waves in yttrium orthoferrite	Olga Komina*, Evgenij Zhukov, Maria Adamova, Yuriy Scherbakov and Valentina Zhukova
8	12-00 12-20	On synthesis of nanocrystalline Ti-B/Ti-B-N phases in a hypersonic plasma jet	Dmitrij Nikitin*, Alexander Sivkov, Dmitrij Gerasimov and Andrew Evdokimov
9	12-20 12-40	Deposition of titanium carbide coatings on copper substrates with high adhesion force	Ivan Shanenkov*, Alexander Sivkov, Dmitriy Gerasimov and Yuliya Shanenkova
10	12-40 13-00	Wettability and surface free energy of laser micro-textured titanium surfaces coated with thin nanostructured HA film	Maria Surmeneva, Polina Nikityuk, Michael Hans and Roman Surmenev

	13-15 14-15	Lunch	
11	14-30 14-50	Microstructure and mechanical properties of binary Ti-Nb alloys for application in medicine	Alexander Thoemmes*, Ivan Bataev, Natalya Belousova and Daria Lazurenko
12	14-50 15-10	Effect of structure of transversely isotropic artificial geomaterials on strength and deformation characteristics under uniaxial compression. Theory and experiment	Pavel Tsoi*, Ol'ga Usol'Tseva and Vladimir Semenov
13	15-10 15-30	Sintering of ceramics based on YBa ₂ Cu _x O _y synthesized by plasma dynamic method	Yuliya Shanenkova*, Alexander Sivkov, Alexander Ivashutenko and Ivan Shanenkov
14	15-30 15-50	Mechanical Properties of Explosively Welded Dissimilar Metal Composites Tested at Elevated Temperature	Iuliia N. Maliutina*, Vyacheslav I. Mali, Daria V. Lazurenko, Alexey Yu. Larichkin, Maxim A. Esikov and Vasilii S. Lozhkin
	15-50 16-20	Coffee-break	
15	16-20 16-40	Comparative evaluation of the sand blasting, acid etching and electron beam surface treatments of titanium for medical application	Irina Grubova, Maria Surmeneva, Roman Surmenev, Anna Ivanova, Vladimir Shugurov, Anton Teresov, Nikolay Koval, Konstantin Kravchuk, Oleg Prymak, Matthias Eppele and Ekaterina Chudinova*
16	16-40 17-00	Spark plasma sintering of ceramics based on silicon nitride and titanium nitride	Alexander Sivkov, Dmitriy Gerasimov, Andrew Evdokimov, Ilias Rakhmatullin and Dmitriy Nikitin*
17	17-00 17-20	Mechanical behavior of the titania nanotubes and hydroxyapatite coating prepared on the surface of titanium	Roman Chernozem, Maria Surmeneva, Viktor Ignatov, Alexander Tyurin, Tatyana Pyrozhkova, Ivan Shuvarin and Roman Surmenev
18	17-20 17-40	Influence of input energy on nanosized product of Ti-Si-N system obtained by plasmodynamic method	Alexander Sivkov, Dmitriy Gerasimov, Anastasia Saigash and Ivan Shanenkov*
19	17-40 18-00	The Influence of Compacting Pressure on Microstructure and Mechanical Properties of Ni-Al Intermetallics	Lilia Shevtsova, Natalia Sarlaeva* and Vladimir Malicov

Date: 03.06.2016

Venue: NSTU building I, 2nd floor, Conference hall

№	Time	Report	Author (*Speaker)
1	9-00 9-20	Influence of the components forming in creep on fatigue properties of the material	Alexey Larichkin, Kirill Zakharchenko*, Boris Gorevand Vladimir Kapustin
2	9-20 9-40	Estimation Of Accuracy In Forming Construction Steels By The HiFocus Technology Of High-Precision Plasma Cutting	Kh.M. Rakhimyanov, N.P. Gaar, A.Kh. Rakhimyanov and A.A. Loktionov
3	9-40 10-00	Structure and Properties of Wear Resistant Layers Fabricated by Non-Vacuum Electron Beam Cladding	Olga Lenivtseva*, Dina Krivezhenko, Galina Alferova, Daria Mul and Lyubov Chuchkova
4	10-00 10-20	Domain wall oscillation in iron borate induced by bending vibrations	Mariia Adamova*, Olga Komina, Evgeniy Zhukov and Aleksandr Kaminsky
5	10-20 10-40	Adhesion strength evaluation of the hydroxyapatite coating on AZ31 magnesium alloy prepared by RF-magnetron sputtering	Alexander Tsapkov*, Timur Mukhametkaliyev, Kozha Ahmet Shagabuddinov, Maria Surmeneva, Roman Surmenev and Ivan Shulepov
	10-40 11-10	Coffee-break	
6	11-10 11-30	Influence of copper on mechanical properties of graphitized hypereutectoid steel	Natalia Stepanova, Tatiana Ogneva* and Aleksey Razumakov
7	11-30 11-50	Research of the DBC Joining Interface	Ivan Krasniy*, Alexandr Berkin, Grigoriy Minskiy, Anastasiya Denisova, Svetlana Kumacheva
8	11-50 12-10	Definitions sorption capacity of nanostructured materials for hydrogen with energy parameters of systems	Evgeniy Boretsky, Dmitriy Vidyaev and Dmitriy Savostikov
9	12-10 12-30	Establishing The Boundaries Of Operating Parameters During Grey Cast Iron Thermohardening By Mathematical Modeling	Kh.M. Rakhimyanov, Yu.V. Nikitin, A.Kh. Rakhimyanov, Yu.S. Semenova and K.Kh Rakhimyanov
10	12-30 12-50	Physico-mechanical properties of Ti-Zr alloy coatings fabricated via ion-assisted arc-plasma deposition	Anna Ivanova, Kozha Akhmet Shagabuddinov*, Maria Surmeneva, Vladimir Shugurov, Nikolay Koval, Ivan Shulepov and Roman Surmenev
	13-15 14-15	Lunch	
11	14-30 14-50	Experimental research on residual strain of silty clay under different dynamic stress	Miao Wang*, Shangjiu Meng and Yiqiang Sun

12	14-50 15-10	Synthesis and characterization of Co nanoparticles	Tsermaa Galya*, Ali Ali Roshanghias and Herbert Ipser
13	15-10 15-30	Study on the Molding Mechanism of Straw Board Density with FEM	Pengqiang Fu*, Yunzhi Zhang, Liang Zhou, Jianghua Ge and Di Xu
	15-30 15-50	Properties of Geopolymer Concrete Based on Fly Ash	Oyunbileg Dashdondog* and Batbaatar Tsegmid
	15-50 16-20	Coffee-break	
	16-20 16-50	Experimental research of models of thin-walled-compressed rings with defects type of delamination of layered composite materials	Anna Chermoshentseva, Lubov Bokhoeva* and Vitali Rogov
	16-50 17-10	Effect of Sintering Temperature (Bi ₂ O ₃ Fe ₂ O ₃) _{0.4} (Nb ₂ O ₅ Nd ₂ O ₃) _{0.6}	Sadia Tasnim Mowri*, M A Gafur, Quazi Delwar Hossain, Aninda Nafis Ahmed and Muhammad Shahriar Bashar
	17-10 17-30	Synthesis of nickel nanowires by reduction of nickel formate in polyol medium	Olga Logutenko, Alexander Titkov, Alexander Vorob'yov*, Yurii Yukhin and Nikolai Lyakhov

CHEMICAL TECHNOLOGIES

Chair: Nikolay F. Uvarov (NSTU)

Date: 01.06.2016

Venue: NSTU building V, room № 222

№	Time	Report	Author (*Speaker)
	14-00 14-10	Section opening	Uvarov N.F.
1	14-10 14-30	Electrocatalytic hydrogen evolution reaction based on reduced graphene oxide: Pt nanocomposite	Tri Khoa Nguyen, Jong-Won Yun and Yong Soo Kim*
2	14-30 14-50	Effect of Zeolite Modification on Mechanical Properties of Epoxy Composites	Tatyana V. Melnikova, Olga B. Nazarenko*, P. M. Visakh and Dmitry V. Martemyanov.
3	14-50 15-10	Palladium catalyzed Synthesis of Carbazoles from Arylboronic acids	Sang Kook Woo* and Deuk-Young Goo.
4	15-10 15-30	Automated analysis of chloride and nitrate ions in the wastewaters by ionometry	Anna Vtorushina, Ekaterina Larionova*, Aleksandra Basharova and Ksenia Bulygina.
5	15-30 15-50	Synthesis of catalysts for the catalytic pyrolysis of methane	Daria A. Pershina*, Maxim V. Popov, Eugene A. Maximovskiy and Gennady G. Kuvshinov
	15-50 16-20	Coffee-break	
6	16-20 16-40	Au-CdS-MoS ₂ Hybrids and Their Enhanced Photocatalytic Performance	Jong Wook Hong
7	16-40 17-00	Plasma Chemical Etching of Silicon (Basic Technology Production of Tri-Gate and FinFET of Transistors)	Boris Bogomolov
8	17-00 17-20	FTIR evaluation of AZ31 magnesium alloy coated with hydroxyapatite after in vitro immersion studies in SBF	Timur Mukhametkaliyev, Kozha Ahmet Shagabuddinov*, Maria Surmenev, Alina Vladescu, Diana Vranceanu, Cosmin Cotrut and Roman Surmenev
9	17-20 17-40	Morphological effect of ZnO nanostructure photoanode on the performance of dye-sensitized solar cells	Miri Seo, Byeongsu Kim*, Soon Wook Kim and Eui Jung Kim.
10	17-40 18-00	Modification of TiO ₂ microsphere into N-doped graphene-N doped carbon nanoflakes/N doped TiO ₂ microsphere for lithium battery anode	Balasubramaniyan Rajagopalan*, Byeongsu Kim, Sekar Sampath and Jin Suk Chung

Date: 02.06.2016

Venue: NSTU building V, room № 222

№	Time	Report	Author (*Speaker)
	09-00 09-10	Section opening	Uvarov N.F.
1	09-10 09-30	Increase of the product stabilization efficiency in the middle distillate catalytic dewaxing process	Nataliya S. Belinskaya, Natalya V. Popova*, Irina Zyryanova, Evgeniya Frantsina and Emilia Ivanchina
2	09-30 09-50	Fabrication of H ₂ Sensors Based on Pd Nanocrystal Morphologies-Reduced Graphene Oxide Nanocomposites and Their Characteristics	J.H. Lee* and GwiY Sang Chung
3	09-50 10-10	Energy Level Alignment between π -Conjugated Molecule and Gold Surface	Jaehoon Jung*, Ju-Hyung Kim and Yousoo Kim
4	10-10 10-30	Investigation of the morphology and wettability of hydroxyapatite coating deposited on the surface of AZ31 magnesium alloy	Evgenii Melnikov, Maria Surmeneva, Matthias Epple, Kateryna Loza, Mathias Ulbricht, Roman Surmenev and Mikhail Tkachev*.
5	10-30 10-50	Hybrid gel of Alginate and Polyacrylamide as an efficient binder for Graphite and Silicon/Graphite anodes of Lithium ion batteries	Bolormaa Gendensuren*, Chengxiang He and Eun-Souk Oh
	10-50 11-20	Coffee-break	
6	11-20 11-40	Boronic acid-containing molecular brushes for reversible intramolecular crosslinking	Min-Su Um and Hyung-Il Lee*.
7	11-40 12-00	Plasmonic gold nanostructure for enhanced Photoelectrochemical water splitting	Sundaram Chandrasekaran, Miri Seo*, Sui Lijun and Seung Hyun Hur.
8	12-00 12-20	Synthesis of high-purity bismuth citrate using solid bismuth oxohydroxonitrate	Ekaterina Naydenko, Alina Artamonova*, Artem Daminov and Yuri Yukhin
9	12-20 12-40	Preparation of Bi ₂ S ₃ nanoparticles via exfoliation of solids into colloidal dispersions	Pavel Poltarak*, Sofya Artemkina and Vladimir Fedorov
10	12-40 13-00	The use of Pt,Fe/TiO ₂ catalysts for the protection of the environment from CO emission	Alexei Shutilov*, Roman Shutilov, Ilya Pakharukov and Galina Zenkovets
	13-15 14-15	Lunch	
11	14-30 14-50	Characterization of antibacterial polymer films based on PVA and silver nitrate	Enkhtuya Turtogtokh, Tsermaa Galya and Janbolat Ashim
12	14-50 15-10	Hydroxyapatite synthesis with ethylenediamine tetra acetate addition	Liliya Leonova* and Uliana Pavlyuk
13	15-10 15-30	Development of gasoline blending recipes taking into account volume and composition of the involved feedstock	Elizaveta Sviridova*, Maria Kirgina and Bogdan Sakhnevich

14	15-30 15-50	Adsorption technique for the removal of nickel from industrial sewage	Vladimir Larichkin, Galina Pushkareva, Taisiya Gavrilova* and Darya Tsitsilina
	15-50 16-20	Coffee-break	
15	16-20 16-40	Binder-free fabrication of carbon/graphene-TiO ₂ for Li-ion battery	Byeongsu Kim*, Balasubramaniyan Rajagopalan, Sekar Sampath and Jin Suk Chung
16	16-40 17-00	Eco-friendly mass degradation of mixed plastic waste by solid catalysts into ash and diesel-like fuel below 200°C without creation of Dioxin	Hui Gon Chun*, Dae Hyeon Eom*, Young Hoon Jung and Heung Jae Jung.
17	17-00 17-20	Direct synthesis of Glycerol carbonate from Glycerol and CO ₂ with La/Zn catalysts under the high pressure system	Chan Yi Park*, Huy Nguyen Phu, Lien Do Thi and Eun Woo Shin.
18	17-20 17-30	Synthesis of nickel nanowires by reduction of nickel formate in polyol medium	Olga Logutenko, Alexander Titkov, Alexander Vorob'yov*, Yurii Yukhin and Nikolai Lyakhov
19	17-30 17-40	Electrocatalytic hydrogen evolution reaction based on reduced graphene oxide:Pt nanocomposite	Tri Khoa Nguyen, Jong-Won Yun and Yong Soo Kim*

Date: 03.06.2016

Venue: NSTU building V, room № 222

№	Time	Report	Author (*Speaker)
1	09-00 09-20	Numerical Investigation of Benzene with Ethylene Mixing in Alkylation Technology	Elena Khlebnikova*, Elena Ivashkina and Alexander Bekker.
2	09-20 09-40	Electron Transport Properties of Polycrystalline Tungsten-Rhenium Disulphide	Vitalii A. Kuznetsov, Anatoly I. Romanenko, Alexander S. Berdinsky, Alexandra Yu. Ledneva, Sofya B. Artemkina and Vladimir E. Fedorov Alexander Berdinsky
3	09-40 10-00	Synthesis of Boron Carbide Fine Powder Using Carbon Nanofibers	Yury Krutskii, Alexander Bannov Yuri Krutskii
4	10-00 10-20	Synthesis of nanocrystalline powders of yttrium-doped zirconia	Alexandr Aparnev*, Lubov Afonina and Nikolai Uvarov
5	10-20 10-40	Thermoelectric properties of polycrystalline WS ₂ with Nb replacement of metal atoms	Galina Yakovleva*, Anatoliy Romanenko, Alexander Berdinsky, Vitalii Kuznetsov, Alexandra Ledneva and Vladimir Fedorov Yakovleva Galina
	10-40 11-10	Coffee Break	
6	11-00 11-20	Adsorption of Lead on Gold. Quantum Chemical Consideration	Nikolay Rogozhnikov
7	11-20 11-40	Surface modification of synthetic diamond with tungsten	Arina Ukhina*, Alexey Yusuf, Dina Dudina, Evgeniy Galashov and Boris Bokhonov
8	11-40 12-00	Investigation of the Water Solutions Softening Dependence from the Equilibrium Concentrations of Calcium Ions at Ammonium Hydroxide Use	Mikhail Kataev, Sergey Zhuravkov, Natalia Malanova and Ekaterina Popova*
9	12-00 12-20	Investigation of MA SHS interaction of silicon dioxide with magnesium	Tatyana Grigorieva, Tatyana Udalova, Andrey Letsko, Sergey Vosmerikov, Ekaterina Gorina*, Irina Vorsina and Nikolay Lyakhov
	12-20 12-30	Section closing	
	13-15 14-15	Lunch	

SECTION 2: INFORMATION AND COMMUNICATION TECHNOLOGIES

Chair: Ekaterina V. Chimitova (NSTU)

Date: 01.06.2016

Venue: NSTU building I, room № 425-1

№	Time	Report	Author (*Speaker)
	14-00 14-10	Section work opening	
1	14-10 14-30	DVB-T2 Channel Filters	Vladimir Razinkin, Yury Morozov* and Alexander Polovnikov
2	14-30 14-50	Multi-slot Spectrum Sensing Schedule and Transmission Energy Allocation in Cognitive Radio Networks under Secret Constraint	Hoan Tran Nhut Khai* and Koo In-Soo
3	14-50 15-10	A Carrier-based Modulation Method for Five-leg Indirect Matrix Converter fed Open-End Load with Zero Common-mode Voltage	Quoc-Hoan Tran and Hong-Hee Lee*
4	15-10 15-30	Simulation of Power Amplifiers with Memory Effect	Valentina Goychuk*, Alexandr Polovnikov, Vladimir Khrustalev and Sergey Matveev
5	15-30 15-50	Smart Campus Guide System based on Bluetooth Low Energy	Youngdoo Lee* and In-soo Koo
	15-50 16-20	Coffee-break	
6	16-20 16-40	Modified Technique of FIR Filter Design by the Frequency Sampling Method	Roman Belorutsky* and Ivan Savinykh
7	16-40 17-00	The Linearly Polarized Ends-Fed Magnetic Dipole Antenna Excited by Circular Waveguide	Dmitry Buhtiyarov* and Anatoly Gorbachev
8	17-00 17-20	Study of Congestion Control for Wireless Sensor Networks based on Small User	Chen Yidong*
9	17-20 17-40	Design and Implementation of a GPS-enabled Mobile Wireless Sensor Network for Livestock Herd Tracking in Mongolian Nomadic Herding	Sung-Gi Choi*, Ganzorig Ch., Baljinnyam A. and Sarantuya D.
10	17-40 18-00	On a New Type of Attack in Wireless Sensor Networks: Depletion of Battery	Vladimir Shakhov*

Date: 01.06.2016

Venue: NSTU building I, room № 425-2

№	Time	Report	Author (*Speaker)
	14-00 14-10	Section work opening	
1	14-10 14-30	Algorithm for Optical Handwritten Characters Recognition Based on Structural Components Extraction	Pavel Khaustov, Vladimir Spitsyn and Elena Maksimova*
2	14-30 14-50	Encoded Light Image Active Feature Matching Approach in Binocular Stereo Vision	Xiaoyang Yu*
3	14-50 15-10	Target Tracking Based On Object's Shape	Irina Borisova* and Grigory Yakovlev
4	15-10 15-30	Segmentation of Textured Images Described by Hierarchical Gibbs Model	Vasily Vasyukov and Anna Zaitseva*
5	15-30 15-50	Statistical detection of seismic pulses for hydraulic fracturing monitoring	Pavel I. Vaynmaster* and Eugeniy V. Rabinovich
	15-50 16-20	Coffee-break	
6	16-20 16-40	Application of the SURE model for e-self assessment of faculty members	Uranchimeg Tudevdagva* and Bayar-Erdene Lkhagvasuren
7	16-40 17-00	Complex system of developing information and communication competence	Ivan Tomilov, Alexandra Zakharova, Tatyana Chernysheva, Elena Molnina, Elena Telipenko and S.L. Min'kov
8	17-00 17-20	Data analysis of expert systems by pulse diagnosis	Mikhail G. Grif and Yumchmaa Ayush*
9	17-20 17-40	Semantic Analyses of Text to Translate to Russian Sign Language	Michael Grif and Yuliya Manueva*
10	17-40 18-00	A Case-Based Reasoning Approach with Fuzzy Linguistic Rules: Accuracy Validation and Application in Interface Design-Support Intelligent System	Ekaterina Makarova, Tatiana Avdeenko* and Maxim Bakaev

Date: 02.06.2016

Venue: NSTU building I, room № 425-1

№	Time	Report	Author (*Speaker)
1	9-10 9-30	Digital Model and Calibration Algorithm of Linear Matrix Simulator	Natalia V. Belyavskaya*, Aleksey V. Kiselev and Maksim A. Stepanov
2	9-30 9-50	Design of Dual-band Yagi Antennas	Anatoly Gorbachev and Natalya Tarasenko*
3	9-50 10-10	Research of the Sign Demodulation Algorithm under the Action of High Power External Interference	Nikita Khailo*, Aleksey Vostretsov and Veniamin Bogdanovich
4	10-10 10-30	Multi-Channel Approach to the Assessment of Speech Intelligibility	Ivan Reva, Andrey Ivanov and Mariya Markova*
5	10-30 10-50	Research of the Synchronous Spectral Analysis Method	Maria Kraynyuk* and Olga Alsova
	10-50 11-20	Coffee-break	
6	11-20 11-40	Performance analysis on IPv6 transition technologies and transition method	Gereltsetseg Altangerel*, Enkhtur Tsogbaatar and Dashdorj Yamkhin
7	11-40 12-00	Two-dimensional fast Fourier transform: Butterfly in analog of Cooley-Tukey algorithm	Valeriy Tutatchikov*
8	12-00 12-20	The Analysis and Modeling of Efficiency of the Developed Telecommunication Networks on the Basis of IP PBX Asterisk Now	Tansaule Serikov, Mubarak Yakubova, Vladimir Razinkin, Ali Mekhtiev, Vyacheslav Yugay, Alexey Yurchenko, Alena Okhorzina*, Aliya Alkina and Aizada Muratova
9	12-20 12-40	Special methods of statistical information processing to solve basic problems of seismic guard system	Svetlana Filatova* and Darya Sokolova
10	12-40 13-00	Semantic-numerical approach to automatic synthesis of timeparamertized parallel programs	Konstantin Lysykh*, Gennady Polyakov, Vladimir Lysykh, Elena Tolstolujskaya and Dmitry Tolstolujsky
	13-15 14-15	Lunch	
11	14-30 14-50	The Integrated Flexible Scheduling Algorithm of Complex Product with No-Wait Constraint between Procedures	Zhi-Qiang Xie, Wen-Xiu Su, He Guo, De-Yun Chen, Yu Xin and Yu-Zheng Teng
12	14-50 15-10	Analysis and Implementation of FFmpeg Separating Technology Based on HEVC	Guangxue Yang, Shouqiang Kang and Jiawei Hu
13	15-10 15-30	Simulation of data streams in networks with multiple compound of segments	Valery Kobylanskiy and Andrew Kurochkin*
14	15-30 15-50	Revisiting the creation of a training simulator complex based on an intelligent agent	Valeriy Khabarov and Konstantin Speshilov*

	15-50 16-20	Coffee-break	
15	16-20 16-40	Information Model of Decision-Making in Management Regional Tourism	Julia Vladikina* and Olga Kazanskaya
16	16-40 17-00	Calculation of Derivatives Fisher Information Matrix in problem of Active Identification Stochastic Linear Systems with Input Signal Parameterization	Vladimir M. Chubich and Elena V. Filippova*
17	17-00 17-20	Robust parametric identification of Gaussian linear discrete system based on adaptive fading Kalman filter	Vladimir Chubich and Oksana Chernikova*
18	17-20 17-40	Optimal Parameter Estimation of Gaussian Linear Discrete Models in The Frequency Domain	Oksana Chernikova and Kseniia Anisimova*

Date: 02.06.2016

Venue: NSTU building I, room № 425-2

№	Time	Report	Author (*Speaker)
1	9-10 9-30	Generalizations of the Polychoric Correlation Approach for Analyzing Survey Data	Ekaterina Khailenko and Anastasiia Yu. Timofeeva*
2	9-30 9-50	Huber M-Estimator Based LTE Robust Detector	Mohamed Essai Ali*
3	9-50 10-10	Hill's Estimator of the Heavy Tail Index of Stable Distribution	Hailong Chen*
4	10-10 10-30	Binary Choice Modelling Based on the Stable Distribution	Vladimir Timofeev and Anastasiia Sanina*
5	10-30 10-50	A Comparison of Some Methods for Training Hidden Markov Models on Sequences with Missing Observations	Alexander Popov, Tatyana Gulyaeva and Vadim Uvarov*
	10-50 11-20	Coffee-break	
6	11-20 11-40	The construction of the robust regression models with the LS-SVM method using a non-quadratic loss function	Alexander Popov and Sharaf Boboev*
7	11-40 12-00	Tight Risk Bounds for Histogram Classifier	Victor Nedel'Ko*
8	12-00 12-20	Developing the risk classification based on ABC-analysis of possible damage and its probability	Vladislav Shchekoldin*
9	12-20 12-40	Method for Estimating Origin-Destination Matrices Using Markov Models	Valeriy Khabarov and Alexandr Tesselkin*
10	12-40 13-00	The Wiener Degradation Model in Reliability Analysis	Evgeniya Chetvertakova* and Ekaterina Chimitova
	13-15 14-15	Lunch	
11	14-30 14-50	Permutation Test Implementation for Testing Set of Genetic Hypotheses Using GPU	Mikhail Grishchenko*, Aleksandr Yakimenko and Marat Khairtdinov
12	14-50 15-10	Criteria of Test against Absence of Trend in Dispersion Characteristics	Irina Veretelnikova* and Boris Lemesko
13	15-10 15-30	The limit distribution of the maximum value test statistic in the general case	Petr Philonenko*, Sergey Postovalov and Artem Kovalevskiy
14	15-30 15-50	A power comparison of the association tests for genome-wide association studies	Sergey Postovalov and R. Wyler Metge*
	15-50 16-20	Coffee-break	
15	16-20 16-40	The comparative analysis of some uniformity tests	Pavel Blinov* and Boris Lemesko
		A goodness-of-fit test based on the Beran estimator	Victor Demin* and Ekaterina Chimitova
16	16-40 17-00	LiTiS: the Software for Statistical Lifetime Data Analysis	Mariia Semenova* and Ekaterina Chimitova
17	17-00 17-20	About properties and power of classical tests of homogeneity of variances	Tatiana Sataeva* and Boris Lemesko

Date: 03.06.2016

Venue: NSTU building I, room № 425-1

№	Time	Report	Author (*Speaker)
1	9-00 9-20	Finite Element Code for 3D Numerical Analysis of Thermoelastic Stresses in Nose Caps of Hypersonic Flight Vehicles	Yuri G. Soloveichik, Marina G. Persova, Tatyana B. Epanchintseva, Dmitry S. Kiselev, Denis V. Vagin* and Vasiliy K. Belov
2	9-20 9-40	Software and Its New Possibilities for 3D Processing of Marine Electrical Survey Data	Marina G. Persova*, Yuri G. Soloveichik, Denis V. Vagin, Yulia I. Koshkina and Evgenia I. Simon
3	9-40 10-00	Finite Element Meshing for Calculating the Stress-Strain Behavior of Structures with Stress-Raisers	Marina G. Persova, Denis V. Vagin and Mikhail V. Abramov*
4	10-00 10-20	Intelligent Scheduler for Solution of Forward and Inverse Geoelectrical Problems	Marina G. Persova, Yuri G. Soloveichik, Yulia I. Koshkina, Olga S. Trubacheva, Denis V. Vagin* and Petr A. Domnikov
5	10-20 10-40	«Floating Dipoles» Method for Magnetic Survey Data Processing	Yuri G. Soloveichik, Marina G. Persova, Denis V. Vagin, Dmitry S. Kiselev* and Aleksandr G. Zadorozhny
6	10-40 11-00	Numerical simulations of astrophysical problems on massively parallel supercomputer	Igor Kulikov*, Igor Chernykh, Boris Glinsky, Vladislav Nenashev and Alexey Shmelev
	11-00 11-30	Coffee-break	
7	11-30 11-50	Numerical Recovery of Function in a Strip from Given Integral Data on Linear Manifolds	Akbar Begmatov* and Gafur Djaykov
8	11-50 12-10	Inversion of X-ray Transforms with Incomplete Data in n-dimensional Space	Akbar Begmatov*
9	12-10 12-30	Calculating the Stress-Strain Behavior of Composite-made Structures with Cylindrical and Conical Layers	Yuri G. Soloveichik, Tatyana B. Epanchintseva, Dmitry S. Kiselev* and Yuri V. Trakimus
10	12-30 12-50	Reducing the Computational Domain Size for Three-Dimensional Magnetotelluric Modelling	Petr Domnikov*
11	12-50 13-10	Finite Element Formulation with Coupled Vector-Scalar Magnetic Potentials for Eddy Current Problems	Mikhail Royak, Ilya Stupakov, Natalia Kondratyeva* and Evgeny Antokhin
	13-15 14-15	Lunch	

12	14-20 14-40	Automatic Region of Interest Determination Method in Dual Energy X-Ray Absorptiometry of the Femur and Spine	Byambasuren Bat-Erdene
13	14-40 15-00	The Design and Implementation of Home Heating System Based on Internet of Things	Daolin Zhang, Jianhui Han and Lulu Su
14	15-00 15-20	Some Characteristics of Fuzzy Numbers of Curve Type	Ser-Od Bayaraa
15	15-20 15-40	A Kind of Robust Processing for Gaussian Filtering Mean Line of Surface Profile	Xu Jingbo, Nie Jiali and Wang Sheng
16	15-40 16-00	A Spatially Compact Mixture Model for Image Segmentation	Linsen Yu, Yanjun Liu, Deyun Chen and Peng Li

SECTION 3: MECHATRONICS, ELECTRICAL ENGINEERING AND POWER ELECTRONICS

Chair: Nikolay I. Schurov (NSTU)

Date: 01.06.2016

Venue: NSTU building II, room №402

№	Time	Report	Author (*Speaker)
	14-00 14-10	Section work opening	
1	14-10 14-25	N-phase Loads Agreement with Three-phase Grids by Transformers with Power Equalizers	Pavel Morozov and Yury Morozov
2	14-25 14-40	Rotor position sensor's magnetic system of the PMS machine	Alexsander Pristup, Olga Gubareva and Elizaveta Pavlovskaya
3	14-40 14-55	Design of an Electric Vehicle Battery Box Based on Electric-Thermal Model	Xiaogang Wu, Jing Han, N. P Demenkov and Yexin Tian
4	14-55 15-10	The Quaternion Model Of Doubly-Fed Induction Motor	Oleg Nos
5	15-10 15-25	The calculation features of the electrical energy storage devices parameters in transport	Anna Kulekina and Valeriy Biryukov
6	15-25 15-40	Synthesis of automatic control system of the rotor axial displacement of the mechatronic motion module	Ilya Dymov and Denis Kotin
7	15-40 15-55	The Analysis of Influence Bearing Faults on the Induction Motor Efficiency and Diagnosis Study	Nail Safin, Vladimir Prakht, Vladimir Dmitrievskii and Sergey Sarapulov
8	15-55 16-10	The analysis of reactive power in metro	Andrey Petrov and Nadezhda Logutenko
	16-10 16-40	Coffee-break	
9	16-40 16-55	Advanced Induction Coils for Heating Steel Products and their Computer	Victor Demidovich, Anatoly Mikhlyuk, Inna Barankova and Uliana Mikhailova
10	16-55 17-10	Advanced Electrothermal 3D-Model of the Continuous Induction Heaters	Victor Demidovich, Vladislav Andrushkevich, Anatoly Mikhlyuk and Irina Rastvorova
11	17-10 17-25	Experimental research of physical model of the induction crucible furnace and the development of control system	Maxim Fedin, Alexander Kuvaldin, Alexei Kuleshov and Ivan Generalov
12	17-25 17-40	The enhancement of electric mode in the installations with dark infrared radiators and in the gas discharge installations	Elena V. Ptitsyna, Alexandr B. Kuvaldin and Dmitry Ptitsyn
13	17-40 17-55	Development of mathematical model for calculating electric and power characteristics of induction crucible furnace with lumpy charge on using finite elements method	Alexander Kuvaldin, Maxim Fedin, Elena Kasatkina, Oleg Polyakov and Alexei Kuleshov
14	17-55 18-10	Development of arc plasmatrons with long service life of electrodes	P.V. Domarov, A.S. Anshakov, S.I Radko and V.A. Faleev

Date: 02.06.2016

Venue: NSTU building II, room №402

№	Time	Report	Author (*Speaker)
1	09-00 09-15	Dinamic model of a vibratory electromechanical system with spring linkage	Lyudmila Neyman and Vladimir Neyman
2	09-15 09-30	New Construction Types of a Linear Electromagnetic Motor with the Active Teeth-Slot Zone	Vladimir Neyman and Olga Rogova
3	09-30 09-45	New Linear Synchronous Cycle Electromagnetic Machines with Inertial Reverse	Neyman Lyudmila, Schurov Nikolay and Evelina Langeman
4	09-45 10-00	Effect of electric field on oxidation of zirconium by H ₂ O and H ₂ O/CO ₂ supercritical fluids	Andrey V. Shishkin, Dmitriy Yu. Dubov, Mikhail Ya. Sokol, Oxana N. Fedyaeva and Anatoliy A. Vostrikov
5	10-00 10-15	Evaluation of energy recuperation efficiency for operating conditions of city electric transport	Egor Spiridonov and Mikhail Yaroslavtsev
6	10-15 10-30	Evaluation of Hybrid Electric Bus Energy Storage Device Capacity	Vladimir N. Anosov and Mikhail V. Yaroslavtsev
	10-30 11-00	Coffee-break	
7	11-00 11-15	Toward the issue of feedback systems of frequency standards	Mikhail Gurov and Elena Gurova
8	11-15 11-30	Bidirectional Interleaved DC/DC Converter for Electric Vehicle Application	Ahmed Omara and Michael Sleptsov
9	11-30 11-45	Development prospects of single-phase zone rectifiers	Vladlen Ivanov, Sergei Myatez, Andrei Kapustin and Irina Alekseeva
10	11-45 12-00	Application of electro corona discharge for the treatment of seeds before sowing	Boris Malozyomov and Eugenij Porsev
11	12-00 12-15	Development of Hybrid Model of STATCOM	Ruslan Ufa, Aleksey Vasilev, Alexander Gusev and Aleksey Suvorov
12	12-15 12-30	Fault-tolerant control algorithms of switched-reluctance motor drive in open-phase modes	Ivan Rozayev and Georgy Odnokopylov
		Section work closing	

Date: 02.06.2016

Venue: NSTU building II, room №402

№	Time	Report	Author (*Speaker)
1	14-30 14-45	The formation of energy-efficient control of a high-speed ac electric drive	Genadiy Simakov, Yury Filushov and Vladislav Filushov
2	14-45 15-00	The practical realization of robustness for LED lighting control systems	Svetlana Grigoryeva, Alexander Baklanov and Dmitriy Titov
3	15-00 15-15	The Optimization of the Permanent Magnet Synchronous Motor Pole System Geometric Characteristics	Sergey Leonov, Eugenie Grishanov, Danil Fedorov and Igor Rusakov
4	15-15 15-30	Experience and modern technology of the ore-thermal furnace short network designing	Aleksandr Aliferov, Roman Bikeev, Lyudmila Goreva and Vitaliy Zakharchuk
5	15-30 15-45	Energetic and thermal performance of induction heating system with permanent magnets	A. I. Aliferov, R. A. Bikeev, D. S. Vlasov, V. A. Promzelev, A. E. Morev and S. Lupi
6	15-45 16-00	Pulse-width Modulation of Base Vectors in Transistor Invertor	Aleksandr Aliferov, Aleksandr Kislov, Vadim Markovskiy, Bayrgan Shapkenov and Argun Kaidar
7	16-00 16-15	Automation of the self-running calculation of large asynchronous machines based on use of the JavaScript programming language	Andrey Shevchenko and Zoya Temlyakova
8	16-15 16-30	Numerical simulation of the equalizing currents in permanent magnet machines with fractional slot concentrated windings	Georgy Vyaltsev and Alexander Shevchenko
	16-30 17-00	Coffee-break	
9	17-00 17-15	Performance of Doubly-Feed Induction Generator Based Wind Turbine Using Adaptive Neuro-Fuzzy Inference System	Ahmed Diab, Salah Abdelmaksoud, Basem Elnaghi and Kotin Denis
10	17-15 17-30	Electromagnetic torque of synchronous reactive motor with harmonic rotor	Aleksander Shevchenko and Ludmila Shevchenko
11	17-30 17-45	Definition of Contributions of Nonlinear Consumers in Total Distortion of Power Line Current	Gennadiy Zinoviev
		Section work closing	

SECTION 4: ROBOTICS AND AUTOMATION

ROBOTICS AND CONTROL

Chair: Vadim A. Zhmud (NSTU)

Date: 01.06.2016

Venue: NSTU building VII, room № 407

№	Time	Report	Author (*Speaker)
	14-00 14-10	Section work opening	
1	14-10 14-30	Algebraic Design Of LTI Control Systems Using Spaced Pole Localization (NSTU)	Alexander Chekhonadskikh and Alexander Voevoda.
2	14-30 14-50	The Development and Application of Biological Search and Rescue Robots System (HUST)	Fusheng Zhang, Jiazhong Xu and Gordon Zheng
3	14-50 15-10	State feedback control simulation of quadcopter model (MUST)	Batmunkh Amar and Tengis Tserendondog.
4	15-30 15-50	Model Predictive Control of Nonlinear Drum Boiler (MUST)	Damiran Ulemj, Fu Caifen and Tan Wen.
5	15-50 16-10	State Feedback Control of Unbalanced Seesaw (MUST)	Tengis Tserendondog, Byambajav Ragchaa, Luubaatar Badarch and Batmunkh Amar.
	16-10 16-40	Coffee-break	
6	16-40 17-00	Cascaded extremum seeking system design with sliding modes organization (NSTU)	Dmitry Suvorov and Galina Frantsuzova.
7	17-00 17-20	Anti-sway Tracking Control for an Overhead Crane via Singular Perturbation Technique (NSTU)	Natalia S. Rogova and Valery D. Yurkevich.
8	17-20 17-40	Experimental Study of Strength Testing Drive Control System for Avionic Structures (NSTU)	Alexander Laperdin and Valery Yurkevich.
9	17-40 18-00	Investigation of Compensation and Other Methods for Controlling of Oscillating Objects (NSTU)	Vadim Zhmud, Vladimir Semibalamut and Lubomir Dimitrov.
10	18-00 18-20	Designing and Research of the Real Sliding Mode in the Inverted Pendulum Modelling System (NSTU)	Galina Sablina and Andrey Sazhin.
11	18-20 18-40	The Development and Application of Biological Search and Rescue Robots System (HUST)	Fusheng Zhang, Jiazhong Xu and Gordon Zheng
	18-40 18-50	Section work closing	

MEASURING, IDENTIFICATION AND HEURISTICS

Date: 02.06.2016

Venue: NSTU building VII, room № 407

№	Time	Report	Author (*Speaker)
	14-00 14-10	Section work opening	
1	14-10 14-30	Model-Based Design Using Matlab/Labview in Industrial Automation (MUST)	Erdenechimeg Damdinsuren
2	14-30 14-50	Uncertain T-S fuzzy system guaranteed performance tracking control (HUST)	Ling Huang, Hengyan Zhang, Wenbo Xie and Chong Zhang.
3	14-50 15-10	Preprocessing techniques for daily healthcare device using SHIMMERTM wireless sensor platform (MUST)	Amartuvshin Togooch, Erdenechimeg Damdinsuren, Nergui Chuluunbaatar, Tumenjargal Enkhbaatar and Enkhzul Doopalam.
4	15-30 15-50	Model-Based Design Using Matlab/Labview in Industrial Automation (MUST)	Erdenechimeg Damdinsuren.
5	15-50 16-10	Model Predictive Control of Nonlinear Drum Boiler	Damiran Ulemj, Fu Caifen and Tan Wen
	16-10 16-40	Coffee-break	
6	16-40 17-00	Determination of complex amplitudes of the reference and subject the wave fields on interference patterns (NSTU)	Guzhov Vladimir, Sergey Ilinykh, Ilya Marchenko and Victor Emelyanov.
7	17-00 17-20	Eliminating the effect of non-linear distortion of profile fringes for structured illumination method (NSTU)	Guzhov Vladimir, Sergey Ilinykh, Ilya Marchenko and Victor Emelyanov.
8	17-20 17-40	The Parameters Vector Estimation in the Steady State for the Linear Dynamic Systems (NSTU)	Galina Troshina and Alexander Voevoda
9	17-40 18-00	The Active Identification of Parameters for the Unstable Object (NSTU)	Galina Troshina, Alexander Voevoda and Kurbonmurod Bobobekov.
10	18-00 18-20	A Model of Spike Neuron Oriented to Hardware Implementation (NSTU)	Andrey Gavrilov, Valeriy Kangler, Mikhail Katomin and Konstantin Panchenko.
	18-20 18-40	Development of Hardware-software Complex for Automatized Compromising Electromagnetic Emanation Search (NSTU)	Ivan Reva, Andrey Ivanov and Yaroslav Baryshnikov.
	18-40 18-50	Section work closing	

SECTION 5: POWER ENGINEERING AND RENEWABLE ENERGY TECHNOLOGIES

Chair: Felix L. Byk (NSTU), Co-chair: Anastasia G. Rusina (NSTU)

Date: 01.06.2016

Venue: NSTU building II, room № 308

№	Time	Report	Author (*Speaker)
	14.00 – 14.10	Section Work Opening	
1	14.10-14.20	Choosing The 110 Kv Power Line Cross Section By The Method Of Current Economic Intervals In Mongolia	Batbaatar Rentsendorj
2	14.20-14.30	Methods To Convert Electrical Networks And Load Shifting From The Center Of The Wye (Star)	Nomuundari Battulga
3	14.30-14.40	Algorithm For Power And Energy Losses In 0.4 Kv Electrical Networks Of Mongolia	Jigjidsuren Namsraijav
4	14.40-14.50	Numerical And Experimental Investigation Of Temperature Distribution Of A Steel Plate By Preheating From Gas Torch With Multi-Jet Flame	Geun Sik Lee
5	14.50-15.00	Hydraulics Application Of The Free-Surface Lattice Boltzmann Method	Nasanbayar Narantsogt
6	15.00-15.10	Substitution Effect Of Olivine Structured Cathode Materials For Lithium Ion Batteries	Youngil Lee
7	15.10-15.20	On The Issue Of Modeling Non-Sinusoidal Modes Of Distribution Networks	Leonid Bulyga
8	15.20-15.30	Study Of Impact Of Relay Protections Operation On Transients In Electric Power Systems Using Mathematical Simulation	Mikhail Andreev
9	15.30-15.40	Investigations Of A Magnetic Gear For Application In Wind Turbines	Andrey Achitaev
10	15.40-15.50	Optimization Compensating Devices In The Power Supply Systems Using Population Algorithms	Uyangasaikhan Bumtsend
11	15.50-16.00	INVESTIGATION OF OVER-VOLTAGES CAUSED BY THE SINGLE PHASE GROUNDING FAULT IN 6-10kv MEDIUM VOLTAGE DISTRIBUTION	Sodbayar Yadmaa
	16.00–16.30	Coffee Break	Café on second floor of II building
12	16.40-16.50	The Photovoltaic Solar Concentrator System Cooled By A Heat Sink	Alena Okhorzina
13	16.50-17.00	Management Of Power Supply Reliability	Lyudmila Myshkina
14	17.00-17.10	Universal Mathematical Model Of Three-Phase Electrical Transmission Lines	Aleksey Suvorov

15	17.10- 17.20	Development Of Algorithm Of Dispatching Personnel's Possible Actions In Various Regime Situations In Electric Power Systems	Nikolay Ruban
16	17.20- 17.30	Scattering Model of Electromagnetic Field Strength In Sub-Stations	Munkhbaatar Battulga
17	17.30- 17.40	Prerequisites To The Catalytic Thermal Biomass Conversion Into Syngas	Zhanibek Oraz
18	17.40- 17.50	Study Of The Influence Of Heating Rate On The Process Of Grate Gasification Of Balakhta And Osinnikovsky Coal Deposits.	Anton Tolokolnikov
19	17.50 – 18.00	Numerical Analysis Of The Underground Coal Gasification Syngas Composition In Dependence To Supplied Oxidizer Properties	Alexander Tarazanov

Date: 02.06.2016

Venue: NSTU building II, room № 308

№	Time	Report	Author (*Speaker)
	09.00 – 09.20	Study on Insulation Detection Method of Electric Vehicles Based on Single Point of Failure Model	Shouping Chen
	09.20 – 09.40	Challenges of Hybrid DGs for Islanded Microgrid Operation in West Region Energy System of Mongolia	Bekhat Galsan
	09.40 – 10.00	Design method of energy management strategy for range-extended electric buses based on convex optimization	Mingming Gao
	10.00 – 10.20	Problems of Methods to Increase Efficiency of Fuel and Power Development Plan	Bayar Bat-Erdene
	10.20 – 11.00	Coffee Break	
1	11.10 – 11.20	Applying Of The Electrical Equivalent Method For Multi-Objective Power Flow Optimization	Yana Frolova
2	11.20- 11.30	Controlled Vacuum 6 (10) Kv Circuit Breaker Model	Dmitry Shevtsov
3	11.30- 11.40	Effects Of Systemic Factors On The Optimal Efficiency Of Thermal Power Plants In The System Of Combined Heat Supply	Alina Frantseva
4	11.40- 11.50	Rapid Assessment Of The Operational Status Of The Oil-Filled Transformers	Vladimir Levin
5	11.50- 12.00	The Method Of Adequacy Estimation Developed For The Electric Power System	Margarita Nizhnikova
6	12.10- 12.20	Methods Of Balance Matching To Refine The Initial Information As Applied To Thermal Power Plant	Ekaterina Boyko
7	12.20- 12.30	Experimental Estimation Of Surface Heat Transfer Coefficient For Air-Cooled Internal Combustion Engine	Denis Sinelnikov
8	12.30- 12.40	Defining operational regimes of power plants in marketplace	Batzaya Bat-Ochir
9	12.40- 12.50	Cogeneration Unit Based On Air-Cooled Internal Combustion Engine	Denis Sinelnikov
10	12.50- 13.00	Comparison Of Regression And Neural Network Approaches To Forecast Daily Power Consumption	Dmitriy Kryukov
	13.15 – 14.15	Lunch	
11	14.30- 14.40	Tasks Of Optimal Performance Of Hydroelectric In Power System	Ekaterina Sovban
12	14.40- 14.50	Modern State Problems And Prospects Of Development Of The Electric Power System Of Tajikistan	Sherkhon Sultonov
13	14.50- 15.00	Mathematical Model Of Francis Turbines For Small Hydropower Plants	Sherkhon Sultonov
14	15.00- 15.10	Development Of The Intelligent Single Phase-To-Ground-Fault Current Compensation	Aleksei Kuzmin

		System For 6-35 Kv Networks	
15	15.10-15.20	Application Of Rank Models For Structural Forecasting	Anton Kalinin
16	15.20-15.30	Control Of Three-Phase Converter For Ground Fault Capacitive Current Compensation In Ungrounded Distribution Networks	Pavel Smirnov
	15.30 – 16.00	Coffee Break	
17	16.00-16.10	Improving The Accuracy Of Information Support Of The Power Plant	Anton Safronov
18	16.10-16.20	Key Directions Of Increasing Energy Efficiency Of Heat Supply Systems	Evgeniy Kulak
19	16.20-16.30	Optimal Control Law For Minimization Of Active Power Overshoot Due To Water Hammer Effect In A Hydro Unit	Yury Kazantsev
20	16.30-16.40	Protection Of Cables With XLPE Insulation From High-Frequency Overvoltages	Sergey Korobeynikov
21	16.40-16.50	The Analysis Of Moistening Processes Of An Insulator Surface	Alexandr Obsyannikov
22	16.50-17.00	Battery-electric shunting locomotive with lithium-polymer storage batteries	Mikhail Yaroslavtsev
23	17.00-17.10	The method of analyzing vibrations of air power transmission lines using reduced finite-element models of pylons and differential model of thin elastic rod system	Aleksey Kozhevnikov
24	17.10-17.20	Electric Parameters Identification of Synchronous Generator Connecting to the Grid	Mikhail Frolov
25	17.20-17.30	Development Complex Efficiency of Central Heat and Power Plant (CHPP) on the Basis of Exergy Methodology	Chimed Orshuu
26	17.30-17.40	High-Current testing of frequency-dependent device	Nikolay Ilushov
27	17.40-17.50	Features Of Financing Innovative Renewable Energy Development	Nadezhda Kulikova
28	17.50-18.00	Section Work Closing	

Date: 03.06.2016

Venue: NSTU building II, room № 308

Second international seminar

"The development of information technology in the electric power industry"

№	Time	Report	Author (*Speaker)
	10.30 – 11.00	Coffee Break	Café on second floor of II building
	11.00-12.45	Excursion to the laboratories of the Faculty of Power Engineering for English speaking guests from UOU, HUST, MUST and TPU	The staff of the Faculty of Power Engineering
	12.45 – 13.00	Meeting with dean of Faculty of Power Engineering	Anastasia Rusina
	13.15 – 14.15	Lunch	
	14.30-14.50	Opening second international seminar	Anastasia Rusina
1	14.50-15.00	Operation modes of power plants in market conditions	Batzaya Bat-Ochir
2	15.00-15.10	The sustainable development of energy in Tajikistan through complex energy potential of renewable energy sources	Yormakhmadzoda Bakhtiyor
3	15.10-15.20	Structure oriented evaluation model, theory and application	Uranhimeg Tudevdayva
4	15.20-15.30	The electrification of international transport railway corridor from Asia to Europe, as a way of power system sustainable development of Mongolia	Uyangasaikhan Bumtsend
	15.30 – 16.00	Coffee Break	
5	16.00-16.10	The development direction of voltage regulation systems in distributive electric networks	Nurlan Kardjubaev
6	16.10-16.20	The consideration of development possibilities of medical diagnostic expert system of pulse diagnosis	Yumchmaa Ayush
7	16.20-16.30	The specification and analysis of transients in Electric Power Systems	Yuri Shornikov
8	16.30-17.20	Discussion and presentation of Second international seminar certificates and diplomas	Anastasia Rusina
	17.30	Seminar work closing	

SECTION 6: ECOLOGY, ENVIRONMENT ENGINEERING, CIVIL ENGINEERING

Chair: Sergey M. Korobeynikov (NSTU)

Date: 01.06.2016

Venue: NSTU building II, room № 513

№	Time	Report	Author (*Speaker)
	14-00 14-10	Section work opening	
1	14-10 14-30	Numerical Solution of Crown Forest Fire Initiation and Spread Problem	Valeriy Perminov and Soprunenko Elina*.
2	14-30 14-50	Forming of safe urban environment based on external and internal factors	Anastasiia Sheveleva* and Boris Stepanov.
3	14-50 15-10	Development of modern methods of staff training program to reduce the level accidents	Marina Legan* and Olesya Afanaseva
4	15-30 15-50	Possibility of Registration of Changes in the Human Body at Influence of Harmful Production Factors by Means of the Polygraph	Madina Akramova, Sergey Korobeynikov and Behruz Akramov
5	15-50 16-10	Molecular study result of Bacillus thuringiensis	Nandinerdene Baasandorj*, Delgemaa Sovd, Dulguun Dorjgotov and Purevdorj Dambadarjaa
	16-10 16-40	Coffee-break	
6	16-40 17-00	Enhanced capacitance of three dimensional graphene oxide and silver nanowire composite	Miri Seo, Yiseul Song*, Seung Hyun Hur and Sui Lijun
7	17-00 17-20	Algorithm of a Chronological Series Synchronization	P.A. Akulov, V.A. Tartakovsky, Yu.V. Volkov and D. A. Kalashnikova*.
8	17-20 17-40	The Role of Human Factor in Ensuring the Safety of Electric Power Objects after their Intellectualization	Yuriy V. Konovalov and <u>Natalia V. Kuznetsova.</u>
9	17-40 18-00	Artesian water wells for air cooling system of premisis	M. Guselnikov, Yu. Anishchenko, M. Gulyaev and A. Zerkalova.
10	18-00 18-20	Study on Impact of Wood Processing Enterprises' Safety Climate on Employees' Safety Behavior	Bo Wang*, Qiunan Zhang, Dawei Sun and Yongqing Jiang
	18-20 18-35	Section work closing	

Date: 02.06.2016

Venue: NSTU building II, room № 513

№	Time	Report	Author (*Speaker)
	9-00 9-10	Section work opening	
1	9-10 9-30	Destruction of Organic Compounds in Gaseous and Liquid Media in Plasma Microwave Discharge	Seda Magomadova*, Ludmila Shiyan, Alexey Zherlitsyn and Vladimir Shiyan
2	9-30 9-50	Gassing in Transformer Oil at Low and High Frequency Vibration	A. Ridel*, S. Korobeynikov, A. Bychkov, M. Anikeeva
3	9-50 10-10	Simulation of the spatial pollutant jets exiting from the aircraft engine nozzles	Tatiana Korotaeva* and Anna Turchinovich.
4	10-10 10-30	Geometric Forecast Of Defining Deposit	G. Dyachenko and G. Aseev*.
5	10-30 10-50	Vibration Impact of High-Speed Rail Transport to Environment: Evaluations of Gain and Protection	Chang-Myung Lee and Vladimir Goverdovskiy*.
	10-50 11-20	Coffee-break	
6	11-20 11-40	Results of the mineralogical and chemical study on the raw zeolites from the "Urgun" deposit	Dolgorjav Rentsendavaa* and Saran Galdansanbuu.
7	11-40 12-00	Using the Pulsed Electrical Discharge to Obtain Drinking Water from Groundwater sources of Western Siberia with Humic Substances	K. Machekhina*, L. Shiyan, T. Yurmazova, G. Lobanova, L. Kostikova.
8	12-00 12-20	Composite building materials on the basis of technogenic raw materials	Anna Poltoranina*, Irina Frolova, Natalya Usoltseva and Alesya Dolinina
9	12-20 12-40	The image of a large city compared to an ideal "dream city" being perceived by inhabitants of a large city and a small town	Olga E. Tsygankova and Olga S. Shemelina
10	12-40 13-00	Engineering Solutions for protection of underground part of Buildings in against ground water at the Ulaanbaatar City, Mongolia	Dashjamts Dalai* and Altantsetseg Jamts. M.
	13-15 14-15	Lunch	
11	14-20 14-40	Modeling The Processes Of Dust-Gas Collection For Thermal Power Plant In The Design With Variable Geometry	Bagdat Azamatov and Andrey Kvassov
12	14-40 15-00	Artesian water wells for air cooling system of premissis	Mikhail Guselnikov, Yulia Anishchenko, Miliy Gulyaev and Anastasya Zerkalova*
13	15-00 15-20	Modeling The Processes Of Dust-Gas Collection For Tpp In The Design With Variable Geometry	Bagdat Azamatov* and Andrey Kvassov

14	15-20 15-40	Circular Fuel Storage Tank Under Earthquake Influence	Khishigdalai Ch, Dashpurev Sh and Urgamalsuvd Dashdondov*
	15-40 16-00	Result On Settlement Of Frozen Clay Soil After Thawing	Altantsetseg Jamts and Dashjamts Dalai*
	16-00 16-10	Section work closing	

SECTION 7: HUMANITARIAN AND ECONOMIC ASPECTS OF ENGINEERING SCIENCES

ECONOMIC ASPECTS OF ENGINEERING SCIENCES

Chair: Marina V. Khayrullina (NSTU), co-chair: Elena A. Melekhina (NSTU)

Date: 01.06.2016

Venue: NSTU building V, room № 302

№	Time	Report	Author (*Speaker)
1	14-10 14-30	Business Model of Smart City	Tsetsgee Bayasgalan, Burmaa Myagmar*, Baldangombo Osor
2	14-30 14-50	A study of the possibilities to develop non-cash payments in Mongolia	Lkhagvasuren Amartuvshin* and Khosbayar Amgalan
3	14-50 15-10	Combination of immunotherapy and chemotherapy for incurable cancer	Byung-Sam Kim* and Seong-A Ju
4	15-30 15-50	Managing the Introduction of Innovative Energy Saving Technology of Demand Side Management in Regions of the World	Irina Klavsuts*, George Rusin and Dmitry Klavsuts
5	15-50 16-10	Approaches to forming and evaluating the effectiveness of multisectoral innovation associations (innovation clusters)	Oleg Lyamzin*
	16-10 16-40	Coffee-break	
6	16-40 17-00	Research on Garch-Copula model in the field of finance	Hailong Chen*
7	17-00 17-20	Towards the Problem of Creation of Socially Oriented Corporate Reports	Pavel Baranov*, Oksana Chernikova, Olga Grinkevich, Alexey Ivannikov
8	17-20 17-40	Assessment of investment climate for venture capital in Russia	Mikhail Maslov*, Elena Muzyko
9	17-40 18-00	The impact of the technological limitations on the productivity of sectors of Russian economy	Natalia V. Bozo
10	18-00 18-20	A Model to Support Investment Decision Making	Elena Gnedash

HUMANITARIAN ASPECTS OF ENGINEERING SCIENCES

Chair: Vladimir I. Ignatyev (NSTU), co-chair: Marina A. Ivleva (NSTU)

Date: 02.06.2016

Venue: NSTU building V, room № 302

№	Time	Report	Author (*Speaker)
1.	09-10 09-30	Designing the topological image of a socionetworking actor with a complex structure	Mark Romm* and Raisa Zayakina
2.	09-30 09-50	Educational cluster development for student engineering competencies progression in case of Tomsk Polytechnic University	Sergei V. Krivyykh, Konstantin V. Buvakov, Oxana A. Kazakova and Elena S. Vorontsova*
3.	09-50 10-10	The Relationships Between Culture and Service Quality Perceptions	Ariunaa Khashkhuu
4.	10-10 10-30	"Nano-Bio-Info-Cogno-"Machine"" in information-quantum resonance of social space	Vladimir I. Ignatyev* and Evgeniya V. Komf
	10-30 11-00	Coffee Break	
5.	11-00 11-20	Authentic Task as a means of Learning a Foreign Language	Elena Melekhina*
6.	11-20 11-40	The Definite Multitude vs the Indefinite Multitude: Some Aspects of Interaction	Marina Ivleva* and Yelena Fedyaeva
7.	11-40 12-00	Application of Problem-Based Learning Technology in Technical Education	Yevgeny Turlo and Alexandra Alyabieva*
8.	12-00 12-20	Mental Health Predicts Students' Creative Achievements in Technical University	Anastasia Ilinykh*
9.	12-20 12-40	Engineering education in Russia: view of a problem and principal trends	Boris Fedorov, Andrey Syrbakov* and Marina Korchuganova
10.	12-40 13-00	Working condition of teachers in Mongolia: A Comparison of Private vs. State University	Ambarish Pandey* and Undram Sengee
	13-00 14-15	Lunch	
11.	14-30 14-50		

HUMANITARIAN AND ECONOMIC ASPECTS OF ENGINEERING SCIENCES

Chair: Marina V. Khayrullina M. (NSTU), co-chair: Elena A. Melekhina (NSTU)

Date: 02.06.2016

Venue: NSTU building VI room № 803

№	Time	Report	Author (*Speaker)
1.	09-10 09-30	Cellular Automata for the Spreading of an Innovation in Socio-Economic Systems	Vladimir Petrov*, Igor Korel, Natalya Kafidova
2.	09-30 09-50	Development of an accounting model for intellectual property commercialization	Elena Khomenko*
3.	09-50 10-10	Current Trends in Automating Evaluation of Website Usability	Maxim Bakaev*, Tamara Mamysheva and Martin Gaedke
4.	10-10 10-30	The effectiveness of information and communication technologies in the educational process	Polina Ikonnikova*, Sergey Lavrinenko
	10-30 11-00	Coffee Break	
5.	11-00 11-20	Using Benchmarking to Organize and Manage E-Business Website	Vladimir Khvorostov*, Galina Kurcheeva
6.	11-20 11-40	A computerized cognitive test battery	Olga Razumnikova*, Maksim Savinykh, Roman Suslov and Roman Petrov
7.	11-40 12-00	Optimization of Multi-Educational Learning Paths	Liudmila G. Migunova, Amalia L. Kuregyan and Elena S. Vorontsova*
8.	12-00 12-20	Communicating Ecological World View to Mining Engineering Students: Philosophy as an Addition to the Laws of Physics and Economics	Marina Morozova, Tatiana Kust, Larisa Poleschuk and Dmitry Dostovalov*
9.	12-20 12-40	Developing the structure and structural patterns for a system to support strategic decision making using expert knowledge	Alexandra Zakharova*, Vyacheslav Ostanin and Elena Telipenko
	13-15 14-15	Lunch	

Chair: Eugenia V. Dragunova (NSTU)

Date: 03.06.2016

Venue: NSTU building VI, room № 811

№	Time	Report	Author (*Speaker)
1.	09-10 09-30	Cluster Network Paradigm: Developing the Corporate System of the Knowledge Management	Irina Adova*, Olga Milekhina
2.	09-30 09-50	Engineering education in Russia: view of a problem and principal trends	Boris Fedorov, Andrey Syrbakov, Marina Korchuganova*
3.	09-50 10-10	Industry specialization as a basic factor of regional fiscal disparities	Anna Loseva*
4.	10-10 10-30	Measuring growth of IT-firms: types, ontology, trajectories. Evidence from Russia	Evgeniia Dragunova* and Ekaterina Mezentseva
	10-30 11-00	Coffee Break	
5.	11-00 11-20	Evaluation of the territorial cluster innovation environment	Yana Tomilina*, Valentina Titova
6.	11-20 11-40	Assessment of the economic and social efficiency measures for the protection of labor in Russia	Natalia V. Bozo*, Ekaterina V. Malysheva
7.	11-40 12-00	Mutual influence of natural science, technical and economic knowledge in science and education	Galina Litvintseva, Natalya Nizovkina* and Nadezhda Gakhova
8.	12-00 12-20	Problems of Domestic Mechanical Engineering Development In the Conditions Of Import Substitution Policy	Evgenya Prikhodko and Natalya Aksenova
9.	12-40 13-00	Tailoring Research and Development Practices to the Economic Capacity of an Enterprise	Natalia Shcherbakova*
	13-15 14-15	Lunch	

SECTION 8: APPLIED ENGINEERING

THERMAL SCIENCE AND TECHNOLOGY

Chair: Igor I. Korel (NSTU)

Date: 01.06.2016

Venue: NSTU building IV, lecture hall IV

№	Time	Report	Author (*Speaker)
	14-00 14-05	Section work opening	
1	14-00 14-15	The Effect of Aspect Ratio on the Laminar Free Convection inside a Vertical Channel Heated Isothermally	Khalil Yassin
2	14-15 14-30	Experimental Study of Peat Thermophysical Properties	Aigul Ilyasova
3	14-30 14-45	Research of Processes inside a Boiler Furnace with Low-Temperature Vortex Technology Based on Numerical Modeling	Pavel Gergelizhiu
4	14-45 15-00	Analysis of the Models in Forecasting Kinematic Scheme Emission Nitrogen Oxides in the Solid Fuel	Irina E. Korzilova, Natalia V. Vizgavljuk, Konstantin V. Buvakov, Tatiana S. Taylasheva and Aleksandr V. Starchenko
5	15-00 15-15	Effect of CO ₂ Temperature and Particle Size Distribution of Fuel on the Gasification Kinetic Parameters	Konstantin Slyusarskiy
6	15-15 15-30	Firing a Coal with Different Moisture Content in Tangentially-Fired Pulverised Coal Furnace	Elena S. Vorontsova
7	15-30 15-45	Computer-aided Simulation of Fire-tube Boiler Emergency Operation	Yana A. Belousova
8	15-45 16-00	Analytical Estimation of the Central Reflector Impact on Thermal and Fast Neutron Flux Density in Research Reactors	Anton Tanishev
	16-00 16-30	Coffee break	

APPLIED ENGINEERING

№	Time	Report	Author (*Speaker)
1	16-30 16-45	Determination of Operational Characteristics of Diesel fuel: A Study on Computational Methods	Altynov Andrey
2	16-45 17-00	Evaporation Rate of a Horizontal Liquid Layer into a Gas Flow	Evgeniya Orlova
3	17-00 17-15	Using the Chemical Dosimeter to Measure the Integral Characteristics of the Pulsed Electron Radiation	Elena Proskurina
4	17-15 17-30	Change of Coal-water Fuel Rheological Properties by Rotary Flows Modulation	Andrey Zenkov

5	17-30 17-45	Amplitude-based Methods for Tracking Pneumatic Percussion Machines in Soil Drilling by Trenchless Technologies	Oleg Sankov, Ekatrina Denisova, Sergey Gavrilov, Anton Konurin and Sergey Kramer
6	17-45 18-00	Engineering and Analysis of Aerodynamics and Design Parameters for Metro Tunnel Fans with the Same Blade for Different Hub/Tip Diameter Ratios	Evgeniy Russky, Ivan Lugin, Aleksandr Krasnyuk and Nikolaj Popov
7	18-00 18-15	Weight Optimization of Anisotropic Plates with Elliptical Holes in Bending	Vladimir Butyrin, Stanislav Levyakov, Evgeniy Podrzhin and Gennadiy Rastorguev
8	18-15 18-30	Natural Radiation Background in the Some Petroleum Exploration Fields of Mongolia	Erdenetuya Myagmar, Norov Nanzad, Alimaa Vanganjal, Tseveenjav Jamba and Erkhembayar Tseween
	18-30 18-45	Section work closing	

BIOENGINEERING AND TECHNOLOGIES FOR HUMANITY

Chair: Igor I. Korel (NSTU)

Date: 02.06.2016

Venue: NSTU building IV, lecture hall IV

№	Time	Report	Author (*Speaker)
	14-00 14-05	Section work opening	
1	14-05 14-15	An Improved Watershed Segmentation Algorithm for Mammographic Masses Images	Lixin Song
2	14-15 14-30	Bioengineering System Used to Restore the Patients Brain Fields Activity after Stroke	Nikolay Dmitriev, Dmitry Belik and Maria Zinevskaya
3	14-30 14-45	Making 3D Model of Atrioventricular Xenopericardial Bioprosthesis from X-ray Computed Tomography Data	Denis Ivashkov
4	14-45 15-00	Investigation of the Response of the Skin Surface Area, Corresponding to Projection of the Organ Having Pathology, to the External Constant Light	Svetlana V. Belavskaya, Alexander A. Blokhin, Liliya I. Lisitsyna, Anna A. Lyutkevich, Leonid G. Navrotsky, Tatiana M. Starovoytova and Evenia L. Poteryaeva
5	15-00 15-15	Development of Human Arousal Algorithm using Steady-State Visual Evoked Potential (SSVEP)	Hyungseob Han, Jungchul Lee and Uipil Chong
6	15-15 15-30	Expert System of the Monitoring Module for Smart School Laboratory	Yuliya Novitskaya and Andrey Gavrilo
7	15-30 15-45	Analysis of optimal parameters with respect to abnormal mechanical stimulatoin in Heterotopic Ossification after Lumbar Total Disc Replacement	Ganbat Danaa, Kim Yoon Hyuk and Kim Kyungsoo
	15-45 16-15	Coffee break	

APPLIED METHODS FOR ENGINEERING

№	Time	Report	Author (*Speaker)
1	16-15 16-30	Design and Fabrication of the High Q Gyroscope with Ring Spring Structure	Hyeon Cheol Kim
2	16-30 16-45	Structural and Physical Systematization of the Nonlinear-optical Borate Crystals	Boris Kidyarov and Vladimir Makukha
3	16-45 17-00	A Prediction on the Hull-Girder Vibration of Ship in waves	Seung-Lyong Kim, In-Kyu Park
4	17-00 – 17-15	Prediction of the Light Product Yield from the Catalytic Cracking Unit Using the Mathematical Model	Valeriya Stebeneva

5	17-15 – 17-30	Theoretical and Experimental Justification of Using Method of Radiolocation to Define Places of Drilling Measurement Boreholes in Reinforced Concrete Lining of Underground Excavation	Vladimir Legkiy, Vasiliy Baryshnikov, Aleksey Khmelinin, Ekaterina Denisova and Anton Kantsyrev
6	17-30 – 17-45	Controller Synthesizing of Refrigerant Flow Patterns	Vladimir Guzhov, Igor Sajin, Sergey Ilyinykh and Vladimir Shumeyko
7	17-45 18-00	Study on Development of Autonomous Vehicle Using Embedded Control Board	Taeun Kim, Soonyong Yang
8	18-00 18-15	Conjugate Problem of Natural Convection in a Closed Volume with Infrared Emitter	Alexander Nee
9	18-15 18-30	Coulomb wave function discrete variable representation method for computation of ground state electronic densities of noble gas atoms	Naranchimeg Davgiikhorol, Khenmedekh Lochin, Munkhsaikhan Gonchigsuren and Tsogbadrakh Namsrai
	18-30 18-45	Section work closing	

CAMPUS MAP



I-VIII Academic buildings **1 Cultural center** **2 Dispensary** **M Metro station "Studencheskaya"**
1-8 Dormitories **2-4 Sport facilities** **5 Polyclinic**

Novosibirsk metro scheme

