International Institute for Applied Systems Analysis
IIASA www.iiasa.ac.at

Russian Academy of Sciences

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION

Applied Systems Analysis

An Introduction to Applied Systems Analysis, IIASA, its History, Current Research Agenda, Systems Methods, and Science-Policy Activities for a Delegation from Universities of the Russian Federation

23 – 25 November 2016

International Institute for Applied Systems Analysis (IIASA)
Vienna/Laxenburg, Austria

Program

International Institute for
Applied Systems Analysis
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23-25 November 2016
Gvishiani Room

Agenda

Wednesday 23 November

09:00 Welcome and introduction to IIASA by Mr. Iain Stewart (Head, IIASA External Relations, Communications and Library Department)

09:30 Lecture on *Understanding Complex Adaptive Systems* by Dr. Ulf Dieckmann (Program Director, IIASA's Evolution and Ecology Program)

10:30 *Coffee break (Main Schloss Lobby)*

11:00 Lecture on *Eurasian Economic Union: Current Developments and Prospects* by H.E. Tatiana Valovaya (Minister, Member of the Board of the Eurasian Economic Commission (EEC))

12:00 *Lunch with Russian members of IIASA staff - (Oval Room, IIASA Schloss Restaurant)*

13:30 Lecture on *Mathematical Modeling of Natural Resource Management* by Dr. Elena Rovenskaya (Program Director, IIASA's Advanced Systems Analysis Program)

14:30 Lecture on *The Value of Systems Analysis for Real-Life Decision Making* by Professor Yuri Yermoliev (Institute Scholar, IIASA's Advanced Systems Analysis Program)

15:30 Discussions in small groups with IIASA researchers on systems analysis and research topics of shared interest moderated by Mr. Iain Stewart (Head, IIASA External Relations, Communications and Library Department) this session will include the following program representatives:

Janusz Cofala & Wolfgang Schöpp (Senior Research Scholars representing IIASA's Air Quality and Greenhouse Gases Program) – *Coffee area outside Gvishiani Room*

Dmitry Schepaschenko & Ian McCallum (Research Scholars representing IIASA's Ecosystems Services and Management Program) – *Environment Room*

Rupert Mazzucco (Research Scholar, representing IIASA's Evolution, and Ecology Program) – *Schloss 46 Room*

Nadejda Komendantova-Amann (Research Scholar representing IIASA's Risk and Resilience Program) – *Gvishiani Room*

Sylvia Tramberend (Research Scholar, representing IIASA's Water Program) – *Gvishiani Room*

Daniela Weber (Research Scholar, representing IIASA's World Population Program) – *Gvishiani Room*

17:00 Departure of participants

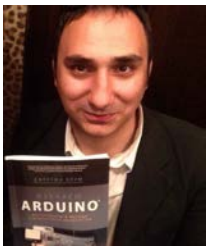
Thursday 24 November

08:30	Short course on *Systems Dynamics*, Part One, by Dr. Ulf Dieckmann (Program Director, IIASA's Evolution and Ecology Program)
10:30	*Coffee break (coffee area outside Gvishiani Room)*
11:00	Lecture on *Assessing the Water-Energy Nexus* by Dr. Marek Makowski (Guest Research Scholar, IIASA Energy Program) and Dr. Simon Parkinson (Research Scholar, IIASA Energy Program)
12:00	*Lunch (coffee area outside Gvishiani Room)*
14:00	Lecture on *IIASA Arctic Futures Initiative* by Dr. Anni Reissell (Director of AFI International Project Office and Guest Research Scholar, IIASA Exploratory and Special Projects) and Dr. Anastasia Emelyanova (Research Scholar, AFI & IIASA's World Population Program) Dr. Mia Landauer (Postdoctoral Research Scholar, AFI & IIASA's Risk and Resilience Program)
15:00	Short course on *Systems Dynamics*, Part Two, by Dr. Ulf Dieckmann (Program Director, IIASA's Evolution and Ecology Program)
17:00	Discussion groups on advanced systems analysis: participants will have the opportunity to join one of the following three discussion groups: - *Network Analysis in Ecological, Economic, Financial, and Social Systems – Gvishiani Room* - *Agent-based Modelling of Economic Systems – Wodak Room* - *Economic Integration and Trade: Prospects of Greater Eurasia – Coffee area outside Gvishiani Room*
18:00	Departure of participants

Friday 25 November

08:30	Interactive session with Professor Dr. Pavel Kabat (IIASA Director General and Chief Executive Officer)
09:15	Introduction to IIASA's Young Scientists Summer Program by Ms. Tanja Huber (YSSP Coordinator)
10:00	*Coffee break (coffee area outside Gvishiani Room)*
10:30	Short course on *Systems Dynamics*, Part Three, by Dr. Ulf Dieckmann (Program Director, IIASA's Evolution and Ecology Program)
12:30	Presentation of certificates to participants by Dr. Ulf Dieckmann (Program Director, IIASA's Evolution and Ecology Program)
12:40	Departure of participants to Russian Mission
13:30	Lunch and drinks reception hosted by H.E. Vladimir Voronkov (Ambassador and Permanent Representative of the Russian Federation to the International Organizations in Vienna, Russian Federation) at Russian Mission

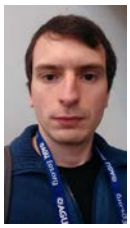
Participants



Name:	Konstantin Vorotyntsev
PhD Thesis Title:	The Development Of Business Tourism In The Baltic Region
PhD Completion Date:	25.12.2017
Research interests:	Development of geo-information products, cross-border regional clusters in Europe, the economic development of the Baltic region, the development of guidelines for the assessment of the relative attractiveness of international business tourism clusters, the development of business and tourism in the Kaliningrad region in Russia.

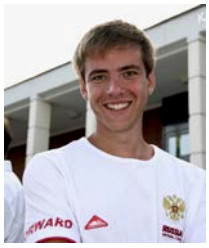
Name:	Alexey Baigashov
PhD Thesis Title:	The Construction of Compact Objects Models Within The Framework of a Simple Model Of R^2 -Modified Gravity
PhD Completion Date:	25.12.2017
Research interests:	Inventory and monitoring of biodiversity components. Evaluation of biological resources, development of ways of their protection and rational use.
Brief Biography	I graduated from the Immanuel Kant Baltic Federal University in 2015 and entered the postgraduate course of “Mathematical physics”. My graduation work was devoted to the construction of compact objects models within the framework of a simple model of -modified gravity. I continues to study the construction of realistic models of compact objects within the framework of modified theories of gravity, the study of possible new types of compact objects in such theories. I am actively involved in educational and popularization activities: lectures on astronomy students, preparing gifted children for the Olympics in astronomy, organizes the astronomical observations of interesting phenomena and objects. I also interested in environmental issues associated with space debris and air pollution emissions of a variety.

Name:	Konstantine Nadaraia
PhD Thesis Title:	Formation Of Protective Composite Coatings For Equipment Operating In Aggressive Environments
PhD Completion Date:	19.06.2013
Research interests:	Development of the PEO-technology of formation of environmentally friendly coatings for equipment operating in aggressive environments. Producing and investigation of protective corrosion-resistant and wear-resistant composite coatings on alloys, and the modification and restore of the protective properties of coatings on alloys that were in exploitation
Brief Biography	Konstantine Nadaraia has graduated Far Eastern Federal University (FEFU) in 2013. In 2013, he entered postgraduate studies of FEFU at specialty "Ecology (chemical sciences)." Now he continues to work in the Department of electrochemical systems and processes of surface modification under the direction of Corresponding Member of the RAS prof. S.V. Gnedenkov on the study of the relationship between methods of formation and restoration of protective coatings and their electrochemical, mechanical and hydrophobic properties. The results of these studies formed the basis for the creation of a method for forming the protective composite coatings on titanium and magnesium alloys using various organofluorine materials. Method of restoration of protective properties of coatings on parts and products made of titanium alloys that have been in operation, has passed the test and introduced at the one of the leading enterprises for repair and modernization of ships "DVZ" Zvezda ".



Name:	Artem Klimchuk
PhD Thesis Title:	Heterodyne Technique Of A Wideband Radiation In Near Infrared Spectral Region
PhD Completion Date:	June 2012
Research interests:	Planetary Science, Air Quality and Greenhouse Gases
Brief Biography	The main sphere of my interests is a laser spectroscopy and it's applications for environmental research. I supervise the development of a heterodyne specroradiometer for monitoring greenhouse gases and their vertical profile in an Earth's atmosphere. I am also a member of a team which is developing a multichannel laser spectrometer for Mars's mission ExoMars2020.

Name:	Petr Mukhachev
PhD Thesis Title:	Investigation Of Small Disturbances Amplification In Laminar Boundary Layers Near A Porous Surfaces On Subsonic And Supersonic Flow Speeds
PhD Completion Date:	June 2012
Research interests:	Applied physics and mathematics, boundary layer theory, subsonic and supersonic flow control, transport system optimization, transition to new technologies
Brief Biography	Born in 1989 and entered Moscow Institute of Physics and Technology at 2006. I have obtained a distinction in applied physics and mathematics in 2012. Later I have developed algorithms for airport traffic optimization for 4DCo-GC project under 7 Framework Program. After that, in 2013-2014 I have participated in wind tunnel and numerical experiments of Epic E1000 aircraft. Since February of 2015, science fellow in Autonomous Systems Laboratory at MIPT. My main interests here are computer vision and control in application for underwater robotics. I am also deeply interested in other fields such as acting, sports and humanities. My current plans are to continue my education and defend a PhD thesis.



Name:	Artem Kislovsky
PhD Thesis Title:	Layout Generator Of Small Unmanned Aerial Vehicle
PhD Completion Date:	June 2012
Research interests:	Applied physics and mathematics Scientific interests: 1. Aerodynamics. 2. Machine learning 3. Ocean Pollution Measurement 4. Transport Systems Analysis and Optimization 5. Transition to New Technologies
Brief Biography	My name is Kislovskiy Artem. I was born on October 24,1994 in Russia. I was a champion in Russian aeromodelling cup (2012) and member of Russian junior national team (2011) in aeromodelling sport. In 2009 and 2012 I was a laureate of the award for support talented youth. I've entered Moscow Institute of Physics and Technology (MIPT) on the applied physics and mathematics specialization in 2012. Computational fluid dynamics, computational solid mechanics and machine learning are my scientific interests. Since 2015 I'm an engineer in Autonomous System Laboratory at MIPT, where I'm developing a quick aerodynamic design method. I've won the UMNIK prize of Foundation for Assistance to Small Innovative Enterprises in Science and Technology for this project in 2015. The results of my research were presented in 58th MIPT Scientific Conference; XXVII Scientific-Technical Conference on Aerodynamics, Russia; 3rd International Workshop ERBA-2016, Russia. I'm also took part in the International Collegiate Design and Innovation Competition at Beihang University, China. Developing quick aerodynamic design method, finishing my master degree and searching for a Ph.D. program are my current plans.

Name:	Alexey Pushnyakov
PhD Thesis Title:	Interdependence Of Cluster's Measures and Distance Distribution In Compact Metric Spaces
PhD Completion Date:	16.06.2016
Research interests:	Applied mathematics and physics machine learning
Brief Biography	Alexey Pushnyakov was born in Yaroslavl on 3 august 1993. In 2010 he graduated from the secondary school and entered the department of control and applied mathematics of MIPT. Alexey received Bachelor of applied mathematics and physics in 2014. From 2014 until now his research has been related with theory of finite metric spaces. Sufficient conditions providing existence of cluster structure in metric space were obtained. In 2016 he completed Master's degree with the thesis "Interdependence of cluster's measures and distance distribution in compact metric spaces". Nowadays Alexey is a graduate student of MIPT and an assistant of the department of control. Further goal of research is to obtain algorithmic criteria based on distance distribution for metrics evaluation applied to data analysis.

Name:	Aleksandr Gonchar
PhD Thesis Title:	Ecological and Economic Aspects Of Development Of Deposits Of Solid Mineral Resources Of The Oceans' Bottom
PhD Completion Date:	December 2018
Research interests:	Economics, Economy and management of a national economy, environmental economics, economics of ecosystems and biodiversity, mineral resources of the oceans, extraction of mineral resources of the oceans. Ecological and economic aspects of development of deposits of solid mineral resources of the oceans' bottom. Theme of research: Ecological and economic substantiation of application technology recovery of engines and mechanisms without disassembling at the enterprise SUE RC "Chernomorneftegaz".

Name:	Arkhipov Dmitry Igorevich
PhD Thesis Title:	Influence Of Modifiers Mo-Sb, W-Sb, Mo-Sb-Fe, Sn-Te, Sn-Te-Fe On The Structural, Magnetic And Thermal Properties Of Cro2 Nanoparticles Obtained By Hydrothermal Method
PhD Completion Date:	2017
Research interests:	Geology, mineral resources exploration and development Engineering geology Earth and related environmental sciences, Geology, Mineralogy, Ecology, Green Technology, Wildlife management, Engineering geology processes caused by construction, Extraction of mineral resources. Rationale for the structure and composition of complex systems engineering-geological and hydrogeological monitoring of mining systems. Theme of research: Research of technological methods for sulfur-containing waste and technical sulfur recycling in the construction materials production.
Brief Biography	I am happy to introduce myself. I am Mr. Arkhipov Dmitry Igorevich. In the year 1990 I was born and bought up in Moscow. In 2013 I was Graduated in “Physics and chemistry of the processes and materials” with honors from NUST “MISiS”. After graduation I have joined as Aspirant and Engineer First category in the Department of Functional Nanosystems and High-Temperature materials NUST “MISiS”. Currently, my area of research is “Materials Science” which includes study of nanoparticles, nanotechnology, magnetic materials, X-ray diffraction, and size effects. I have submitted my PhD thesis (Degree – Materials Technology, under Materials Science (code – 22.06.2001)) entitled “Influence of modifiers Mo-Sb, W-Sb, Mo-Sb-Fe, Sn-Te, Sn-Te-Fe on the structural, magnetic and thermal properties of CrO2 nanoparticles obtained by hydrothermal method” in NUST “MISiS” and my expected month of PhD thesis may be during April-May 2017.

Name:	Nikita Toropkov
PhD Thesis Title:	Development Technology Of Obtaining Bioinspired Implants
PhD Completion Date:	29.06.2017
Research interests:	Feasible Methods for Waste Processing of Iron Removal System. Currently in the field of orthopedics and traumatology there is a problem getting strong and biocompatible implants simultaneously. Our technology is 3D-printing bone implants of any shape based on a composite of hydroxyapatite (main bone mineral) and biodegradable polymers (polylactide, polyglycolide and polycaprolactone). Implant printed by our composites have a strength of an order of magnitude higher than the native bone (compression pressure of 100 MPa, bending pressure 50 MPa), while our task is to determine the optimal content of components for the regulation of bone resorption, as the available compounds with a wide range of compositions fully satisfy the mechanical requirements for implatologii. At this stage our biological tests conducted on the basis of our composite samples.

Name:	Ivan Rozayev
PhD Thesis Title:	Research of fault-tolerant switched-reluctance drive
PhD Completion Date:	2019
Research interests:	Research is devoted to the study of fault-tolerance in electromechanical systems and methods of its maintenance. During the study period in National research Tomsk polytechnic university on the subject of this research have been published more than 30 publications in national and international journals. Moreover, 8 patents of the Russian Federation, and medal of the Russian Academy of Sciences for the best student work were received. In the future, it is scheduled to take additional series of experimental studies on the subject and to report the results of research at conferences. The purpose is to make a significant contribution to the development of science.

Name:	Anna Ponomareva
PhD Thesis Title:	Lithology, Conditions Of Formation And Reservoir Properties Of The Rocks Of The Jurassic Strata And Uv11 Uv12 Kechimovskoye Oilfield (Tyumen Region)
PhD Completion Date:	December 2018
Research interests:	Lithology, Deposition Conditions and Reservoir Properties of Jurassic Deposit Rocks JV11 and JV 12 of the oil field Kechimosvkoe (Tyumen Region). The object of study: oil field, Jurassic productive sediments. Field of study: the problem of the origin of hydrocarbons, modern approaches to its solution. Laboratory studies on the reservoir properties of porosity and permeability were carried out. In the future the structure of formations (lithology, texture, structure, secondary changes) will be studied, as well as the conditions of formation of productive strata. Objective: To identify conditions of formation and propagation conditions of sands based on the results of well logging, petrographic and particle size analysis. There will be determined efficient crude oil extraction methods while studying of layers structure, texture and formation conditions.

Name:	Viktoriya Gimadi
PhD Thesis Title:	Alternative Methods Of Tariff Regulation In The Russian Heating Sector
PhD Completion Date:	2017
Research interests:	Economics and National Economy Management (Economics, Industry, Services Sector, Labour Market, energy, tariff regulation, natural monopoly)
Brief Biography	I graduated National Research University Higher School of Economics with cum laude in summer, 2011 (master's degree in Economics). Also I've got bachelor's degree of Economics with cum laude from Ural State University (2009). Now I'm studying in doctoral program at National Research University Higher School of Economics (Dissertation title – Alternative methods of tariff regulation in the Russian heating sector). At the present time (since 2013) I work for Analytical center for the Government of the Russian Federation (Head of Energy Department). My main responsibilities: making analytical reviews and recommendations for Russian government by energy issues; making materials about various energy issues in regions, countries and around the world. Before I worked for Russian Energy Agency of the Ministry of Energy of the Russian Federation.

Name:	Dmitry Mochalin
PhD Thesis Title:	Technology Of Blockchain As A Way To Ensure The Protection Of Information
PhD Completion Date:	July 2018
Research interests:	Technology of distributed registries (blockchain), their analysis and research their applications (for data protection in particular). Dmitry is organizer of extracurricular activities at the University
Brief Biography	From 2009 educated in National Research Nuclear University “MEPhI” by specialty “Integrated information security of automated systems”, methodology for assessing security systems is the basic sphere of scientific interests is. The graduation project were finished on “The cost-based method of assessing the effectiveness of security systems” in 2014, and started postgraduate studies at the Department of financial monitoring. Successfully taught courses on information security, technical methods and tools of information security and computer networks. Teaches extra course to prepare students and graduates of the department to present the results of research projects, their skill of presentation. Implemented system through training of engineers in the sphere of financial monitoring through the formation of thematic student research bureau to include scientific groups of undergraduate students to provide comprehensive training of highly qualified specialists. The teaching method mainly uses a process approach. The main area of scientific interests now. General interests: art and culture, singing, choreography. 24 years old, single.

Name:	Denis Sokorev
PhD Thesis Title:	To be confirmed
PhD Completion Date:	To be confirmed
Research interests:	Health Systems Organization
Brief Biography	I am currently in my fifth year of studies at the First Moscow State Health University. Up to now I have been a decent student, showing high academic performance. Apart from studying I have a first-hand experience of working practice. I am now employed as a nurse in the cardiology department of intensive care unit. Prior to that I have worked in the operational unit of surgical department for two years and a half. I have an experience of being on call and doing shift work. Overall, it has been a golden opportunity for me to apply the skills and knowledge I gained throughout my studies in the workplace. I recently found myself interested in the health systems organization. I have doing an internship at the Department of Health in Moscow. This is a great opportunity to explore national the health care system and health policies from within and define their strengths and weaknesses that need to be improved in the future. It gives me a broad general perspective about the health care system structure, service and function. On a personal level it develops my creative, leading and organizational skills. Medicine has always been a passion for me, and I have always been encouraged to learn how to help other people. I also believe that modern medicine requires strong international cooperation that would contribute to the development of novel practices and techniques in treatment. Therefore, I consider this opportunity would not only help me to choose my future medical specialty, but also provide me with unique experience that I would apply in my future career.

Name:	Sofia Dostovalova
PhD Thesis Title:	Оценка инвестиционной привлекательности комплексного проекта по совершенствованию системы энергоснабжения нефтехимического предприятия
PhD Completion Date:	2017
Research interests:	Energy conservation, energy efficiency and renewable energy sources
Brief Biography	In 2014 graduated from Samara State Aerospace University with distinction. The topic of graduation project is «Evaluation of investment attractiveness of comprehensive project for improving the power supply system of petrochemical enterprise». In the same year entered graduate school at the Department of Heat Engineering and Heat Engines. In student years the area of research comprised energy management and energy efficiency, including the continuation of research in the framework of the science school (established at the department) for study of the vortex effect and its application in engineering. At present I investigate the heat and mass transfer effect on the sensitivity of thermal conductivity detector for gas chromatography.

Name:	Sergei Zaika
PhD Thesis Title:	Эксергетический анализ и выбор оптимальных параметров криогенных систем охлаждения бортовых ИК-приемников
PhD Completion Date:	30.01.2015
Research interests:	Energy conservation, energy efficiency and renewable energy sources
Brief Biography	In 2015 graduated from Samara State Aerospace University with distinction. The specialty is «Exergy analysis and selection of the optimal parameters of the cryogenic cooling systems onboard IR-receiver». In the same year entered graduate school at the Department of Heat Engineering and Heat Engines. The area of research comprised energy management and energy efficiency, cryogenic coolers, alternative energy. I'm exploring the possibility of using low-grade heat cryogenic.

Name:	Maria Kleimenova
PhD Thesis Title:	Development Of Innovative Resource Saving And Secondary Waste Recycling Technologies Of Food Products Based On Hydrobionts
PhD Completion Date:	2019
Research interests:	Technology of meat, dairy and fish products and refrigerating productions
Brief Biography	I am the PhD student (the 2nd year of study) of the Industrial Ecology Department of St. Petersburg National Research University of Information Technology, Mechanics and Optics. This year I started to take part in the research group of my department dealing with the recycling technologies of food products based on hydrobionts. For the sustainable development of the population alternative ways to obtain animal proteins are needed, and, therefore, unused protein from the fish processing industry could be used as secondary raw materials for subsequent production of protein hydrolysates and isolates. However, existing technologies of recycling of fish waste do not provide a resource efficiency and environmental safety. This research is interesting for me, since St. Petersburg is located in the Baltic region, which means that we have a fish processing productions and substantial resources for fish protein from secondary raw materials. At the same time, creation of resource-efficient technologies for processing is a challenge that requires to clarify possible risks, interactions, and cause-effect relationships of processes. All these factors may influence the waste management and the quality of the product, but with the help of system analysis is possible to manage the process with great efficiency.

Name:	Polina Soboleva
PhD Thesis Title:	Environmental Aspects Of Thermoelectric Materials Production For Solid State Cooling Systems
PhD Completion Date:	2018
Research interests:	Energy and resource saving processes of chemical technology, petrochemistry and biotechnology, Environmental protection and rational use of natural resources. The research topic - Environmental and resource efficiency analysis of technologies for producing materials designed for non-traditional energy sources
Brief Biography	I am currently studying at the Industrial Ecology Department of St. Petersburg National Research University of Information Technology, Mechanics and Optics. This year I started to take part in the research group of my department dealing with the Life Cycle Assessment of thermoelectric materials. These materials are useful at low temperatures energy conversions. The drawback in thermoelectric devices is their low efficiency, which limits wider applications. I decided to choose this thesis subject because the new thermoelectric materials have a lot of valuable properties which can cause long-term variations in the energy supply systems. If the efficiency can be significantly improved, thermoelectric devices can be an important part of the solution to today's energy challenge. My interest to the topic was supported after attending several conferences and courses such as the conference «Feeding the world without destroying the world: Can food production be(come) sustainable?» , conducted by the Baltic University Programme and the summer school "Co-designing Better Urban Living and Wellbeing", organized by Lahti University of Applied Sciences.

Name:	Aleksandr Stupnikov
PhD Thesis Title:	Development A System Of Drones To Monitoring Of Marine Mammals In The Coastal Zone
PhD Completion Date:	06.2017
Research interests:	Information systems and measuring technology for environmental protection, technospheric and environmental safety. The research topic - Development a system of drones to monitoring of marine mammals in the coastal zone
Brief Biography	I entered the ITMO University in 2010 at the Faculty of Information and Communication Technologies in the specialty 210401.65.01 Physics and technology elements of optical communication systems. Final qualifying work in the specialty has been devoted to the receiver unit calibration optoelectronic landing system. An ongoing study have been achieved good results, with practical significance and application prospects. In 2015 I joined the Department of Ecology and Technosphere Safety, training direction 20.04.01 "Technosphere safety". In addition to an excellent school, I'm actively engaged in scientific work at the Department of Ecology and Technosphere Security, took part in many international and national conferences, congresses, forums, such as the St. Petersburg Youth Environmental Forum, Festival of breakthrough innovation ThinkDIF-2015 and forum "Ecology" . I'm the winner of the Youth Creative Festival "I Love the Gulf of Finland". In the future I want to continue scientific work and to become a graduate student.

Name:	Aleksandra Maiurova
PhD Thesis Title:	Energy-Efficient Lighting Solutions Based On Dssc And Perovsite Solar Cells
PhD Completion Date:	09.2020
Brief Biography	Studied in ITMO University at master program, Faculty of Natural Science, Department of Ecology and Technical Sphere Protection from 2014 till 2016, diploma touched ENERGY-EFFICIENT LIGHTING SOLUTIONS for Kerch Bridge. Now I am PhD student on Geoecology and continue develop photovoltaic systems. During master program I took part in 11 conferences, have had 9 publications. I took part in international academic module in EPFL, Lausanne, Switzerland in Environment Engineering Faculty. In 2016 I was awarded the title The best graduate student of ITMO University. Since 2014 I have been working as an engineer in Department of Ecology and Technical Sphere Protection. I`m responsible for international co-operation of our department. After my PhD program I want to become a professor in Department of Ecology and Technical Sphere Protection to teach our student how to protect our world and our life in it.

Name: Irina Timofeeva

PhD Thesis Title: Ontological Principles Of Providing Information For Teaching Geoecology

PhD Completion Date: 03.2017

Research interests: Ecology: Biodiversity, Environmental Management, Sustainable Development, Ecosystem Services, Soil Science, Geoecology, Landscape Ecology, Entomology, Environmental Monitoring

Brief Biography

13 years of experience with a strong environment awareness and ability to find innovative solutions. Published author of scientific papers in national and international journals. Participant and winner of conferences, forums and symposiums.

Education and Training

2006-2011 St. Petersburg University Biodiversity and Nature Protection

2009 Utrecht University Summer Program Physics of the Climate System

2010 Utrecht University Summer Program Toxicology and Environmental Health

2010 St. Petersburg University| Uppsala University | The Baltic University program The Baltic Sea Region – Culture, Politics, Societies

2010-2011 St. Petersburg University Business School program Environmental Management

2011-2013 ITMO University Master's Programme Information Systems and Measuring Technologies for Environmental Protection, Technosphere and Ecological Safety

2013-2016 ITMO University Ph.D. program GeoEcology

I have been preparing for the defense of Ph.D. (Ontological principles of providing information for teaching geoecology) in March 2017.

Work Experience

July 2012 - July 2013 Monitoring Control Analyst SUE Vodokanal of Saint-Petersburg

Aug 2013 - June 2016 Engineer Department of Ecology and Technosphere Safety ITMO University

Sep 2016 – now Lecturer | Teacher at ITMO University

Name:	Elena Bykovskaia
PhD Thesis Title:	Environmental Risks In Ensure Environmental Safety Of The Russian Arctic Region
PhD Completion Date:	05.2018
Brief Biography	Studied in ITMO University at master program, Faculty of Natural Science, Department of Ecology and Technical Sphere Protection from 2010 till 2012, PhD of Geoecology. Started to make researches from 2007. Master diploma was made for Committee for Nature Use Environmental Protection and Ecological Safety and touched developing a measurement technology hydride-forming elements in sediments using atomic emission spectrometry with inductively coupled plasma and generator hydrides. In present Elena has more than 20 publications and has become five-time winner of the St. Petersburg Grants for graduate students, young scientists and young PhD. In 2013 became the winner of the St. Petersburg Government Prize in the field of scientific and pedagogical activity. Conducts lectures, laboratory work and practices of the "Ecology", superintend educational research and diploma work of students, as well as taking an active part in extra-curricular work of the university.

Name:	Antonina Evteshina
PhD Thesis Title:	Strategy Of Development Of Educational Institution On The Bases And The Principles Of A Sustainable Development
PhD Completion Date:	31.05.2016
Research interests:	N/A

Brief Biography

Education: September 2012 – June 2016 Bachelor of Science in Ecological Safety and Nature Management (Saint Petersburg State University, Russia, Department of Ecological Safety and Sustainable Development)
September 2016 – June 2018 Master of Science in Technosphere Safety (Saint Petersburg National Research University of Information Technologies, Mechanics and Optics, Russia, Department of Ecology and Technosphere Safety)

Extra-Curricular Activities:

Leading member of the youth environmental organization LATeam (working in education for Sustainable Development and organizing events on the subject of environment and sustainable development);
One of the leaders of the Saint Petersburg Green University Network (working in Sustainable Development of universities);
Head of the summer educational program “ECOS” part of the Open education project Letnyaya Shkola (additional education on ecology and environment for graduates of environmentalists in Russia)

Motivation:

In the near future I plan to continue research in the field of sustainable development of universities. This topic is interesting for me because I have the right to study the processes in such a complex system as the University and to offer practical solutions. In my research I try to compare the university with a ecosystem and to choose such management decisions that enable Sustainable Development Goals.

Name:	Denis Igorevich Karabarin
PhD Thesis Title:	Reconstruction of Krasnoyarsk CHP-1
PhD Completion Date:	25.06.2014
Research interests:	Heat Power engineering, Thermal power plant, Binary cycles, utilization of low temperature heat
Brief Biography	Studies are underway on the theme rational use of low-grade heat production. This subject are about 3 years and currently have a number of publications and participations in conferences on the topic.

Name:	Mariia E. Anistratenko
PhD Thesis Title:	Ways To Resolve The Conflict In The Self-Education Of The Students Of Different Cultures
PhD Completion Date:	2017/2018
Research interests:	Specialization - conflict-management, the practice of organizing negotiations in the framework of public hearings investment projects and environmental impact assessment, the practice of organizing activities to reduce greenhouse gas emissions in the production.
Brief Biography	I graduated at the Department of human resources management of the School of Economics, Management and Environmental Studies of Siberian Federal University. I got a bachelor's degree at the School of Mathematics and Computer Science. During my studies I always participated at social and various university activities. For example the XXVII Summer Universiade in Kazan I worked as volunteer. I'm often participated in the organization events (conference, forums, exhibitions) the Russian and international levels. Next to my studies I worked in the Department of Youth Policy of the SibFU after that a year ago I started work like assistant of Vice-Rector for Research and International cooperation.

Name:	Galina Shevchenko
PhD Thesis Title:	Distribution And Stocks Cs-137 In The Components Of The Forest Ecosystems Of The Reserve "Stolby"
PhD Completion Date:	06.2016
Research interests:	Specialization - flows and stocks of the radionuclide Cs-137 in ecosystems of forest, erosion of soil.
Brief Biography	From 2012 to 2016 was a student at the Siberian Federal University in the direction of "Ecology and nature", received a Bachelor of Ecology and Environmental Sciences. My graduation qualification work has been devoted to the distribution and stocks of radioactive isotope Cs-137 in the forest ecosystem components in the reserve "Stolby". The study has been identified the activity and stocks of Cs-137 in the soils of the reserve, the isotope content in the needles of Abies sibirica (Ledeb) and annual litter. Information on the distribution of isotope in pure natural ecosystems can be useful for understanding the flows substances in them. In 2016 entered the master's program on "Sustainable Development and Environmental Security" in "Ecology and Nature" in the Siberian Federal University. Then I have a plan to complete the master's thesis on a similar theme, "Distribution and stocks of Cs-137 in the components of the forest ecosystems of the city of Krasnoyarsk".

Name:	Daria Momotova
PhD Thesis Title:	Synthesis Of Azopyrenes And Related Compounds Containing A Thiophene Fragment In Order To Produce Conductive Polymers
PhD Completion Date:	2019
Research interests:	Organic chemistry, Materials, OPV
Brief Biography	Momotova Daria is a first year PhD student in North-Caucasus Federal University. She graduated from the same University in 2013. Her specialty was «Nanotechnology in Electronics». She did her graduation project in Rzhanov Institute of Semiconductor Physics (Siberian Branch of Russian Academy of Sciences) in Novosibirsk. During her undergraduate study she learned visual programming and worked as software developer. She was NI Certified LabVIEW Associate Developer for two years. Several articles were published due to this activity in conference proceedings. Parallel, she got a degree as a translator in professional communication sphere. After graduation she spent a year working as lab assistant and did photography on the side. Then she got a master degree in University of Liverpool. Her course was “Advanced Engineering Materials”. Topic of her master project was “R&D to Determine an Alternative Road Marking Material Suitable for a New 3D Printing Method”. This was an industrial project sponsored by MicropplyTM. MicropplyTM is developing first direct-to-ground 3D printer and her task was to find an appropriate material for it. They were more than happy with her work and left her with great recommendations. She graduated in 2015 with distinction. After that Daria returned to her alma mater. She is now working as teacher assistant and teaches Inorganic and Physical Chemistry. Also, she started her PhD under guidance of Professor Aksenov A. V. Topic of her dissertation is “Synthesis of azopyrenes and related compounds containing a thiophene fragment in order to produce conductive polymers”. She chose this topic as a step to her dream job – working in organic photovoltaic (OPV). Daria strongly believes in importance of alternative energetics use. Recently she finished an online course “Organic Solar Cells - Theory and Practice” from Technical University of Denmark. It has only further motivated her to dedicate her efforts to this area of research. Her goal is to create a material which will qualitatively surpass existing materials.

Name:	Ksenia Saprykina
PhD Thesis Title:	The Study Of Hydrogeological Conditions Of Changes In The Development Of Oil Deposits On An Example Of Deposits In Shirotnoye Ob’
PhD Completion Date:	05.2017
Research interests:	Sciences of the Earth (Geoecology, Geology, Historical geology, Historical and regional geology, Ecological monitoring, Geological practice)
Brief Biography	Sciences of the Earth (Geoecology) (code 25.00.36) Information Bachelor degree in the Ecology and nature, 2011. Master’s degree in the Techniques and technology of Oil and Gas, 2013. Assistant of the Geology Department (since 2013), teaching subjects: “Geology”. “Historical geology”, “Historical and regional geology”, “Ecological monitoring”, “Geological practice”.

Name:	Ekaterina Igorevna Dolgacheva
PhD Thesis Title:	Evaluation of promising areas of use of liquefied petroleum gas (LPG)
PhD Completion Date:	12.2018
Research interests:	Specialization - economics of oil and gas complex Scientific work: Evaluation of promising areas of use of liquefied petroleum gas (LPG) Area of interest: economics of oil and gas industry; energetics; investments; finance.

Name:	Vladimir Igorevich Stakhiv
PhD Thesis Title:	Developing Of Competitive Coolants
PhD Completion Date:	06.2017
Research interests:	Chemical technology of natural energy and carbon materials
Brief Biography	He carries out scientific research at the Department of Chemistry and Technology of Lubricants in the area of heat-transfer oils (Import substitution of coolant oils), cutting fluids. The number of scientific publications: 5. Participant and winner of international scientific conferences. Also interested in different fields of energy.

Name:	Antonina Polezhayeva
PhD Thesis Title:	The Study Of Polar Lows Using Hydrodynamic Modeling.
PhD Completion Date:	20.06.2016
Research interests:	Hydrometeorology. Field of study: research of polar cyclogenesis using numerical simulation and satellite passive microwave data
Brief Biography	A Junior Researcher at Satellite oceanography Laboratory(SOL) at Russian State Hydrometeorological University (since 2016). A 2nd year student of master degree in meteorology. Research polar cyclogenesis using hydrodynamic modeling, different parametrization schemes of WRF model for improving polar low forecast. Investigation the effect of different parameterization schemes physical processes on the quality of the modelling polar low. Participant and winner of Russian and International scientific conferences. Future plans are: 1) Study of data assimilation methods of satellite remote sensing of the atmosphere in the polar low modeling. 2)Analyze the polar low simulation results in the polar and the standard version of the WRF model.