



February- March 2017

- I. Bilateral / Multilateral Cooperation**
- II. Science, Technology & Innovation in Russia.**
- III. Profile of R&D Institutes and Industry in Russia**
- IV. Forthcoming Workshops and Conferences in Russia**



**Bimonthly Newsletter
of the
Embassy of India
Moscow**

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by*

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Dear Readers,

Greetings from Science & Technology Wing, Embassy of India, Moscow!

This year is a special year as both the countries are celebrating the 70th year of diplomatic relations. Many events are planned to celebrate the anniversary year including events related to Science and Technology. The months of February and March have witnessed several endeavors towards strengthening Bilateral cooperation. This has started with a high level delegation from Ministry of Economy to be a partner country in Global R&D summit in Bangalore organized by Department of Science of Technology in collaboration with FICCI. The delegation was lead by Deputy Minister Mr. Oleg Fomichev, a declaration has been signed to extend the cooperation in the area of Innovation.

A round table was organized by the Embassy of India in association with Zelinsky Institute to discuss the future of India-Russia S&T cooperation, The chief guest of the event was Dr. Arvind Gupta, Dy,NSA of GoI, the event was well attended by the Scientific community of Russia. A delegation consists of Innovators from Russian visited to the State of Maharashtra to collaborate in the areas of innovation and a Center of Excellence has been established in Kolkatta in association with leading Russian Universities.

The present issue of the Newsletter gives glimpses of the latest S&T developments in Russia. Researchers at the Institute of Bioorganic Chemistry in Moscow have developed a multifunctional browser VDJviz to process big data derived from modern DNA sequence analysis. Russian Prime Minister D. Medvedev signed a decree to issue of \$172m to Russia's leading 21 universities this year in order to increase their competitiveness among international scientific and educational universities. The Tomsk State University as a part of international research team has come up with a self-learning artificial intelligence which might help in research and treatment of a variety of amnesias, and also of the Alzheimer's and Parkinson's diseases. Researchers from St Petersburg Peter the Great Polytechnic University have come across "unexpected phenomena" in the crystal lattice of antiferroelectric lead zirconate. When impacted by external factors, the lead zirconate crystals were found to offer two different types of lattice formation. Scientists from the Institute of Nuclear Physics SB RAS have developed a device to combat several forms of advanced cancer. Researchers at the Irkutsk Technical University have developed methodology and know-how enabling search for and identification of diamonds without X-ray. Specialists from Tomsk State University are working on software for real-time analysis of data obtained with a georadar during road scanning. It is expected to be able to generate 3D images of roadbed layers for composition analysis and identification of construction flaws and/or defects caused by vehicles or weather conditions. Scientists at MISiS in Moscow in collaboration with China's ZijinMiningGroup have created a fast and cost-effective method of extracting gold from ores.

Looking forward to take Indian-Russian Relations in Science and Technology to new heights and this is possible by continued support from you and your valued team.

We hope our Newsletter facilitates identification of potential Russian partners by Indian organisations. Your queries on Russian S&T developments and suggestions for improving the impact of the Newsletter are welcome.

Abhishek Vaish

I. Bilateral / Multilateral Cooperation

1. Global R&D Summit 2017 Indian-Russian R&D and Innovation Cooperation.

On the sidelines of the Global R&D Summit on Apr 7, 2017 in Bangalore, the Department of Science and Technology, GoI and Ministry of Economic Development of the Russian Federation signed a joint declaration to stimulate cooperation in the field of promoting innovation ecosystem between the two countries.

As per the declaration, the two countries will strive to deepen cooperation to promote innovation and technology entrepreneurship through promotion of development of long-term cooperation, co-innovation and direct contacts between Russian and Indian Innovation clusters and also business associations, techno-parks, business-incubators, high-tech companies, start-up enterprises, educational and research institutions.

Prof Ashutosh Sharma, Secretary, Department of Science and Technology stated that India and Russia are natural partners on innovation, and that with increased people to people contact both countries will take the relations to new heights through this joint declaration.

Mr Fomichev Oleg, State Secretary-Deputy Minister of Economic Development of the Russian Federation, particularly stressed on the need to extend the collaborations in developing innovation capabilities for various sectors.

The two sides also agreed to implement joint projects in the field of innovation and exchange of information, as well as best practices in the innovation space. The Declaration was signed within the framework of the India-Russia Round Table on S&T/Research co-operation. The Round table was dedicated to the 70th anniversary

between the two countries and connected the innovators of both the countries.



Russian State Secretary-Deputy Minister of Economic Development Fomichev Oleg shakes hands with Prof Ashutosh Sharma, Secretary, Department of Science and Technology.

2. Indian-Russian Round Table on Development of S&T Cooperation held in Moscow.

Zelinsky Institute in association with Embassy of India, Moscow organized round-table in Moscow on 27th of March, 2017 to discuss development of cooperation in science and technology. The chief guest of the event was Deputy National Security Advisor Dr Arvind Gupta, and Corresponding member RAS Nikolay Nifantiev, Co-Chair of bilateral Integrated Long-Term Programme. The event was dedicated to the 70th anniversary of the establishment of diplomatic relations between India and Russia.

Senior representatives from Russian research institutes, centers and universities shared their results, experience and impression of work in the framework of existing bilateral mechanisms. Scientists of the two countries underlined the significant strengthening of bilateral scientific ties in recent years, highlighting new priorities in the field of biomedical research and the field of glycoscience. According to Russian participants, there is a demand for funding large-scale projects in new major directions of bilateral research in areas such as

Geophysics, Radioelectronics, development of new types of submersible vehicles for marine research and others. According to Indian and Russian officials, both the countries have the potential for fruitful cooperation in creating medicines and vaccines, the development of IT and methods of cyber security, renewable energy and other priority areas confirmed under BRICS Programmes. They also expressed the importance of ILTP and expressed desire to restart it. According to Mr Gupta, the results of basic science need to be brought to practical application. Dr Gupta noted the critical importance of science for the development of society as a whole and for all areas of work of the Indian government, including the economic, social and cultural-educational domains, politics and geopolitics and national security.



Indian-Russian Round Table meeting at Zelinsky Institute of Organic Chemistry RAS

3. Russian Innovation Mission in Maharashtra conducted.

On occasion of 70th year of the India-Russia Diplomatic Relations, a Russian Delegation visited Pune and Mumbai during Mar 27-31, 2017 to participate in the India-Russia meetings within the framework of the Russia Innovation Mission to India. The mission aimed at exploring diverse opportunities for cooperation in the field of innovation: joint R&D, technology business incubation, new models of S&T Park, R&D commercialization, technology transfer. Meetings were held with

Indian Organizations, Universities and Corporations, such as Science and Technology Park (STP), Maharashtra Chamber of Commerce, Industries and Agriculture (MCCIA), IIT Bombay and Institute of Chemical Technology (ICT), Research Innovation Incubation Design Labs (RIIDL) and others.



Meeting at Institute of Chemical Technology (photo with Vice Chancellor Dr. D. G. Yadav)

The delegation represented 16 persons from organizations and institutes from Russia such as Saint Petersburg State Forest Technical University, Ulyanovsk State Technical University, JSC 'Pluton', JSC 'Research and Production Association 'Mars', Aviation Holding Company 'Sukhoi', JSC 'Sukhoi Civil Craft', 'Partner-M' LTD, PHYSTECH PARK and Competency Development Center LLC. During the visit Phystechpark signed MoUs with SPT Pune and Zone Startups technology business incubator.

4. Indo-Russian Center of Excellence inaugurated to Promote Indo-Russian Scientific Ties.

On Feb 23, 2017 JIS University, Kolkata, India, and Russian-Indian Scientific and Technological Center, Moscow, Russian Federation have launched a new initiative for promoting Russian-Indian scientific and technological cooperation, creating Indo-Russian Centre of Excellence. The

inauguration took place during the International Symposium on Gen Next Initiatives for Digital India in Kolkata.



Signing of the memorandum on establishing of Indo-Russian Center of Excellence

The Centre looks to promote close interaction between scientific and educational institutions of India and Russia by working in four key areas: education, skill development, R&D and technology transfer. The centre will pool in expertise from both countries and make innovative products commercially viable. The centre aims to enhance communication between Russian and Indian universities and research centres, identify and nurture the best practices, as well as open new opportunities for academic exchanges.

The Centre of Excellence will aim to become a gateway for innovators. If an Indian or Russian entrepreneur approaches the Kolkata-based centre with a proposal for a technological partnership with commercial potential, the Russian-Indian S&T Centre in Moscow will be able to connect him or her with partners in either country.

The centre will work with four universities from Russia – Moscow Institute of Physics and Technology (MIPT), and Russian New University (RosNOU) – and will also receive support from the Russian-Indian S&T (Science and Technology) Centre based in Moscow. It

will offer membership opportunities to all interested scientific and innovative industrial organizations from India and Russia.

5. DST-RFBR Jubilee Conference to be held on in June 2017

On Jun 21, 2017 the Department of Science and Technology, GoI (DST) jointly with the Russian Foundation for Basic Research are organizing India-Russia Jubilee Conference. The grand event will be held in Moscow and is dedicated to the 10th anniversary of DST-RFBR cooperation as well as the 70th Anniversary of diplomatic relations between India and Russia.

The Indian delegation will be lead by Professor Ashutosh Sharma, alongside officials of DST. Indian scientists cooperating with the Russian Side through DST-RFBR may club their scientific meetings and anniversary event together. Within the framework of the conference a special exhibition will also be hosted to commemorate rich history of scientific partnership between the two countries. This conference is a great opportunity to connect dedicated scientists from India and Russia and bring this fruitful bilateral initiative to greater heights. Indian experts are cordially invited to take part in this Conference and make a report on the joint research that has been carried by their respectful teams.

6. Indian Delegation visits Kursk Medical University

On March 22, 2017 the delegation of the Indian Embassy in the Russian Federation headed by the Ambassador Extraordinary and Plenipotentiary His Excellency Mr. Pankaj Saran paid an official visit to the Kursk State Medical University.



Ambassador Mr Pankaj Saran's visit to Kursk region

With the aim of learning more about the education activities of KSMU notable for the high level of training of the Indian citizens, the members of the delegation visited a clinical trial site – the Kursk regional clinical oncologic dispensary and the KSMU Center of accreditation and simulation training, which is implementing new approaches in the medical education through mastering of professional competences amidst highly realistic simulated medium.

Afterwards the delegation of the Embassy held a meeting with the KSMU students from India, where the Ambassador mentioned the high level of the Indian students' contentment with the educational process and the living conditions in Kursk. The delegation held another meeting with the university administration and discussed issues such as KSMU joining the Russian and Indian Association of universities, development of cooperation in education, academic mobility, participation of KSMU in the programmes "Global Initiative for Academic Networks (GIAN)" and "VAJRA (Visiting Advanced Joint Research) Faculty Scheme". The Rector of KSMU Professor V.A. Lazarenko suggested creating a Russian and Indian Association of Medical Universities.

II. Science, Technology & Innovation in Russia.

1. Multifunctional Browser for Immunogenomics Developed

Researchers at the Institute of Bioorganic Chemistry in Moscow have developed a multifunctional browser, designated VDJviz, to process big data derived from modern DNA sequence analysis. The project is expected to step up the development of immunogenomics.

According to Ivan Zvyagin, one of the project developers and authors of the scientific article, the new software product owes its name, VDJviz, to the names of the groups of genome fragments that form mature receptor genes for the B- and T-cells of the human immune system, as well as antibodies. The names are: V—variable, D—diversity, and J—joining. As per Zvyagin, the complex gene maturation process called V(D)J recombination lays the foundation for the development of adaptive immunity, the protective system in the body which is theoretically capable of withstanding any pathogen that comes, and preventing tumor formation. Mr. Zvyagin hopes the project will help develop new therapies for autoimmune and oncologic diseases, as well as for allergies.

2. Universities to Get New Funds to Boost Global Competitiveness

Russia's leading 21 universities may expect to receive about \$172m this year as federal support of efforts aimed at increasing their competitiveness among international scientific and educational centers. Prime Minister Dmitry Medvedev has signed a decree endorsing the move.

The subsidy is coming from the 2017 federal budget as part of a broader 2013-2020 competitiveness boost program, which aims to bring at least five Russian universities into the world's Top-100 of global universities by

2020. The universities have been divided in three categories. Category 1 universities will each receive about \$14m; category 2 universities are each getting \$8m; and category 3 universities may expect to receive \$2.4m each. The highest subsidies will be allocated for the Kazan Federal University, the Novosibirsk State University, ITMO University in St. Petersburg, and also a number of the leading Moscow-based universities including MIPT (Phystech), MPhI, MISiS—all technology focused—and the Higher School of Economics.

3. Self-learning AI for Medicine and Neurocomputers Created

An international research team has come up with a self-learning artificial intelligence, a breakthrough that may have wide applications, including therapies to treat human memory dysfunctions. The key participant in the project is the Tomsk State University. Other developers also include researchers from Germany, Bulgaria, Ukraine, Belarus, and Kazakhstan. A mathematical and computer model of the human brain was built first, followed by the development of a radio electronic device that contains perceptrons. The device is capable of processing an array of information, including video, sounds, etc. Work is currently under way to develop the core of our robotic complex, which is a smart control center.

According to Prof Syryamkin, one of project developers, their solution might help in research and treatment of a variety of amnesias, and also of the Alzheimer's and Parkinson's diseases, as well as other dementias. All these disorders typically have the same root cause, which is either damaged neural links or neural activity decrement. Physicians could use an artificial brain to model pathologies, and then draw on the experience to choose drug-based therapies to address the problems.

4. Electrolyte-free Storage Battery under Development

Scientists at the St Petersburg Peter the Great Polytechnic University in collaboration with French, Swiss and Polish colleagues have unveiled a discovery which they believe is a major first step towards the development of electrolyte-free storage batteries. The researchers have come across "unexpected phenomena" in the crystal lattice of antiferroelectric lead zirconate. When impacted by external factors, the lead zirconate crystals were found to offer two different types of lattice formation. The material's functional properties hinge on which of the two to choose. The scientists discovered two new crystal phases at high temperatures and under high pressure.

Conditions found in the experiment are very close to those believed to be created in next gen power storage systems, in which energy is stored and released through a switch between the crystal phases of different structure. Such structural transition is believed to release considerable amounts of energy within very short time intervals, and no-electrolyte design offers obvious advantages such as simplicity in integration and a decrease in the number of power-storing cells.

5. Scientists from Novosibirsk have created a device to treat advanced cancer

Scientists from the Institute of Nuclear Physics SB RAS have developed a device to combat several forms of advanced cancer. The new method is at a testing stage, however the results prove its efficiency, for example in treating cerebral glioma. The device has been demonstrated to Deputy Chairman of the lower house of the Russian Parliament, who gave a high appraisal to the invention and expects it to become in high demand abroad.

The unit is used for boron neutron capture therapy — a technique that allows hitting the cancer cells selectively. A solution with a high content of boron is injected in human blood, and this element gets accumulated in cancer cells. After that, the body is exposed to a flux of neutrons and nucleuses of boron absorb these particles. As a result, the cancer cells are destroyed and the healthy ones are not affected.

6. New diamond search and identification technique under way in Siberia

Researchers at the Irkutsk Technical University (IrTU) have developed methodology and know-how enabling search for and identification of diamonds without X-ray. The developers are seeking investors to apply their technology to making a special quadcopter to search for diamonds by scanning the surface of a deposit field. The key advantages of a quadcopter solution are that it can work for a long time, cover great distances, and the human factor is not involved. Experts estimate that with a large-scale use of the technology, the cost of diamond production will drop by 30-to-50% from today's X-ray reliant methods.

On top of that, with the technology promising opportunities may open up for an upgrade in jewelry techniques and forensic science in the field of precious stones related crime. IrTU approach is based on the scanning of all diamond characteristics, including chemical, physical, optical, geometrical, etc. Therefore their innovative solution enables clear identification of diamonds in a mass of any counterfeits made of rhinestone or fianite. For example, if a diamond lies on a large ground with lots of counterfeits around, experts can pinpoint the precious stone by video imaging.

7. Siberian Georadar to Look for Road Defects in Real Time developed.

Specialists from Tomsk State University are working on software for real-time analysis of data obtained with a georadar during road scanning. The software is expected to be able to generate 3D images of roadbed layers for composition analysis and identification of construction flaws and/or defects caused by vehicles or weather conditions.

The georadar is fixed on a vehicle and can scan the roadbed with radio waves in real time as the vehicle is moving, leaving the road intact. It can "see" a line of the road two meters wide. Data collected by the radar is then processed with the help of proprietary software. Based on fast radio image development algorithms, the software is said to be able to generate 3D images of every crack, air inclusion or alien object, and other defects roads typically have. Monitoring the situation will help authorities better supervise the construction of new roadbeds and repairs of old ones. The system is GPS compatible and will show the exact location of a flaw on a road for repair crews to be able to swiftly arrive and address the problem, and also create a map of dangerous spots on the road.

8. Cost-effective Gold Extraction Technique Developed by MISiS

Scientists at MISiS in Moscow in collaboration with China's ZijinMiningGroup have created a fast and cost-effective method of extracting gold from ores. The new technology of processing gold-copper ores is expected to replace the widespread Russian method of extracting gold from copper-containing ores through direct cyanidation.

In the conventional approach, copper impedes gold extraction, which leads to very

low extracted quantities and a very high cost. An ounce of gold extracted through the traditional technology may cost up to \$800, which makes production economically unattractive because at a stock exchange an ounce sells at \$1,200.

The new technology is based on ammonia-cyanide leaching and is said to offset copper's negative impact on the quantities of gold extracted from ore. The test results have demonstrated a dramatically improved cost-effectiveness of the new approach, with the hours of processing reduced from 100-120 to 14-18. Using ammonia-based cyanidation also enables the extraction of the precious metal from scrapped electronics and old computer hardware.

III. Institute Profiles

1. Kursk State Medical University

Rector: Dr Viktor A. Lazarenko

Address: Russia, Kursk, Karla Marxa 3

Contacts: Tel.: +(4712)58-81-32,

Fax: +(4712)51-43-03;

E-mail: kurskmed@mail.ru;

Website: <http://eng.kurskmed.com/>

Kursk State Medical University (KSMU) is an educational, scientific and cultural center in the Central Black Earth region. According to the results of monitoring of the Ministry of Education and Science of the Russian Federation, KSMU entered in the list of the effective universities in the country. The academic staff of 752 specialists comprises 115 D.Sc. and 408 Ph.D. The structure of the university includes 14 faculties, the Center of Practical Training of Students, the Center of International Education and Language Communication "Languages and Culture", Research Institute of Environmental Medicine, University Placement Office, a library, and a consulting diagnostic polyclinic. Kursk Medical University has a long-term cooperation with India in the field of education and science.

Great attention is paid to practical training of doctors, pharmacists and other specialists. Necessary skills for doctors of various majors are formed by direct contact with patients at clinical departments and during practical training. With the same purpose according to the global trends virtual simulators and mannequins are used. The university has a center for science and innovation and a council of young scientists. Student scientific society gives an opportunity to all interested students to engage in research work.

Directions of research:

- Experimental and Applied Physiology;
- Biotechnology and Biomedical Engineering;
- General Pathology;
- Medical Genetics and Ecology;
- Cardiology;
- Experimental Surgery and clinical anatomy;
- Morphogenesis and Regeneration;
- Clinical and Experimental Pharmacology;
- Neurology, Psychiatry and Neurosurgery;
- Immune Homeostasis in Pathological Conditions;
- Surgery of the organs of the abdominal and thoracic cavities, blood vessels and the musculoskeletal system. Emergency surgery;
- Gerontology and Geriatrics;
- Obstetrics and Gynecology;
- Pediatrics;
- Dermatovenereology and Cosmetology;
- Technology of obtaining and analysis of biologically active substances and their metabolites.

2. Southwest State University

Rector: Academician Sergei Gennadievich Emelianov

Address: 94, 50 let Oktyabrya, Kursk, Russia

Contacts: Tel: +7 4712 50-48-20,



Fax: +7 4712 50-48-00;
E-mail: rector@swsu.ru
Website: <https://www.swsu.ru/>

SWSU is a rapidly developing university in the city of Kursk which holds the leading position among Russia's universities. Since 1964 this university has provided professional training to thousands of students. There are 12,000 people who study in the university, more than 450 of them are international students from 46 countries. Students from all over the world come to SWSU for a 3-month or a 6-month courses to learn Russian language and its culture. Those who would like to get their degree in SWSU take a 1-year Preparatory Russian Language Program. The Program allows international students to adapt to a foreign culture, another educational environment and to find new friends. The University has cooperation agreements with about 90 universities all over the world.

Research is conducted in the following areas:

1. Energy Conservation and Efficiency;
2. Strategic Information Technologies;
3. Space Technologies and Telecommunication;
4. Medical Technologies;
5. Technologies of Environmentally Safe Resource Conservation Industry and Processing of Agricultural Raw Materials and Light Industry Products.

Educational Programs in English for foreign students:

1. Management;
2. International Economics;
3. Computer machines, complexes, systems and networks;
4. Civil Construction;
5. International Relations.

3. Arctic and Antarctic Research Institute (AARI)

Director: Dr Ivan Evgenievich Frolov

Address: 38 Bering str., St.Petersburg, 199397, Russia

Contacts: Tel.: +7(812)337-31-01,

Fax: +(812)337-3241;

E-mail: frolov@aari.ru;

klep@aari.ru;

klep@aari.nw.ru

Website: <http://www.aari.ru/main.php?lg=1>

State Scientific Center of the Russian Federation the Arctic and Antarctic Research Institute is the oldest and the largest Russian research institution in the field of comprehensive studies of the Polar Regions. AARI belongs to the Russian Federal Service on hydrometeorology and environmental protection. It has 17 Scientific Departments and Arctic and Antarctic Museum. Besides the Scientific Departments and Laboratories, the AARI has the Center of Ice and Hydrometeorological Information, World Data Center-B on sea ice, Russian Antarctic Expedition (RAE), scientific research and experimental base: the station in the Arctic and Antarctic, "Ladozhskaya" and "Gorkovskaya" Stations (near St.Petersburg), research vessels including the unique vessel of icebreaker type "Academic Fedorov", specific ice tank, experimental producing complex for the development and production of research devices. The AARI develops relations with scientific and economical organizations, companies and associations working in the Arctic and Antarctic. The AARI is well-known in the world that allows it to mutually cooperate with the centers and institutions of India, the USA, Canada, Norway, Germany etc. and participate in the international projects, expeditions, symposia, working groups, committees and commissions engaged in the investigations of the Polar regions of the Earth.

The AARI performs the complex investigations in the Arctic and Antarctic in the field of oceanography, physics of ice, ocean, and inland water, meteorology, ocean/air interaction, geophysics, sea ice studies, glaciology, polar geography, hydrochemistry,



hydrology of river mounts and water resources, ecology, interaction of the ship's hull and other engineering constructions with ice, polar medicine.

The AARI fulfills scientific and applied developments, natural experiments. This activity is directed to:

- complex development of basic scientific knowledge about the processes occurring in the Arctic and Antarctic environment (ice cover, ocean, island water, river estuaries, atmosphere, upper atmosphere, ionosphere) and interaction between these media;
- creation of the new technical means and technologies for the contact and remote-sensing measurement of parameters of the media under study;
- collection, concentration, analysis and distribution of the data on state and variability of medium including ones under antropogenic influence, long range transport and climate changes;
- hydrometeorological, hydrophysical and ecological provision (including the operative one of economical and defensive activities of Russia in Polar regions including works on Arctic shelves;
- planning, coordination and provision of complex scientific research in the Arctic and Antarctic using research vessels, aircraft, polar stationsetc.;
- training of hight-skilled scientific staff.

4. Yugra State University

Rector: Dr Tatiana Karminskaya

Address: ulitsa Chekhova, 16, Khanty-Mansiysk, Russian Federation

Contacts: Tel.: +7(346)7-357-504 (Rector's office);

E-mail: rector@ugrasu.ru;

a_martynenko@ugrasu.ru;

o_gololobova@ugrasu.ru

Website: <http://en.ugrasu.ru/>

Yugra State University is a leading regional university which provides research and all levels of professional education to solve a variety of problems concerning the high-technology industries of the Yugra region. Each year over 2,000 specialists graduate from the university and get employed into the regional companies. The staff of the university has reached considerable results in all spheres: training highly qualified specialists, efficient scientific activity, which contributes to reaching high standards of well-being of the region's population and shaping an innovational socially oriented model of the development of Yugra. The University warmly welcomes students and researchers worldwide, who wish to study or do research at Yugra State University, or have suggestions concerning any way of cooperation.

The major fields of the scientific activity and professional training are: Energy, Ecology, Materials Technology, Constructional Engineering, Transport, IT, Economics, Law. Eight scientific schools in these priorities are shaped in the university: Electrical Power Industry, Advanced Nano-materials, Construction Technologies, Forecast Systems, Information Tecnologies (headed by Rector), Petrochemistry, Geoecology, Ecology.

5. BK Boreskov Institute of Catalysis, SB RAS

Director: Academician Valentin Nikolaevich Parmon

Address: pr. Lavrentieva 5, Novosibirsk, Russia, 630090

Contacts: Tel.: 7(383)330-87-67;

E-mail: bic@catalysis.ru

Website: <http://www.en.catalysis.ru/>

The Boreskov Institute of Catalysis (BIC) is now one of the largest research centers worldwide specialized in catalysis. BIC's



affiliations are in cities St-Petersburg and Volgograd.

General activity focus:

- Scientific (research) activities to gain and apply new knowledge;
- Engineering activities to gain and apply new knowledge for solution of technological and engineering problems;
- Educational activities to train high-skilled researchers;
- Innovative activities to put new ideas, scientific knowledge, technologies and products into industrial practice;
- Informational, metrological, service etc. activities to support the research.

Research focus:

- Fundamentals of catalysis;
- Unified theory of homogeneous, heterogeneous and enzymatic catalysis; prediction of catalytic action;
- Theory and scientific basis of catalyst preparation;
- Kinetic studies of catalytic processes;
- Theoretical basis of chemical engineering;
- Catalysts and catalytic processes for innovative application areas.

IV. Forthcoming Workshops and Conferences in Russia

1. TECHNOPROM 2017

Dates: 20-22 Jun, 2017

Place: Novosibirsk, Russian Federation

Coordinator: Tatiana Loginova (Exhibition organiser; Tel: +7495-663-63-86); Mr Sergey Sannikov, Head of Department (Conference organiser; Tel: +7-383-223-24-30)

Contacts:

Email: info@forumtechnoprom.com

Website:

<http://forumtechnoprom.com/?language=en>

2. IX International IT Forum with the participation of BRICS and the SCO countries

Dates: 6-7 Jun, 2017

Place: Khanty-mansiysk, Russian Federation

Coordinator: Mr Vladislav Rishko, Organiser

Contacts:

Phone: (3467) 31-81-79;

Email: RishkoVI@admhmao.ru;

Website: <http://itforum.admhmao.ru/2017/en/>

3. International Congress of Scientists 2017 (ICS 2017)

Dates: 05-07 Jul, 2017

Place: Moscow, Russian Federation

Coordinator: RUDN University, Ms Ms. Nurul, Conference Organiser

Contacts:

Email: galishnikova_vv@pfur.ru;

infoipncs@gmail.com

Website: <http://www.ics2017.org/>

4. The 6th Advanced Functional Materials and Devices Conference (AFMD)

Dates: 26 Jul – 1 Aug, 2017

Place: Moscow, Russian Federation

Coordinator: Prof. Elmira Badamshina, Organiser

Contacts:

Email: info@afmd2017.com;

savilov@afmd2017.com;

visa.support@afmd2017.com;

Website: <http://afmd2017.com/en/>

5. 2017 International Conference on Aerospace Technology, Communications and Energy Systems (ATCES 2017)

Dates: 28-30 Sep, 2017

Place: Samara, Russian Federation

Coordinator: Ms **Ms.Suzy Shih**, Conference Secretary

Contacts: Phone: +852-30506939;

Email: atces@apise.org;

Website:

<http://www.atces2017.org/index.html>