HERALD OF RUSSIAN-INDIAN NETWORK

Issue 3, March 2017

Terra Incognita

This anniversary year of Indo-Russian diplomatic relations is the best year for celebration, but also for self-reflection of future of these relations. What do we know about each other except for long-lasting friendship? How much are people of Russia aware of modern state of Indian economy, its science and technology development and achievements? What Indian people know about reforms and transformation of the Russian education system after USSR collapse? As Russian so Indian mass media and science literature are full of information about diplomatic actions and military cooperation of both countries and have almost no publications about modern development of these countries. We are all in the grip of stereotypes and in fact both countries are *terra incognita* for each other. Therefore, knowing each other, and exploring modern identity of each other, could be vital tasks for the future. The team of Resource Center is dedicated to contribute to this task and invite young researchers, scholars, students, and professionals, who are interested in developing Russian-Indian relations in science, technology, education and innovation, to join this Russian-Indian Network.

With best wishes,
Team of RC 'Russia-India: Bridging Education, Science, and Innovation'

From Academia to Industry

ARTerial Stiffness Evaluation for Non-invasive Screening, ARTSENS

By Healthcare Technology Innovation Center, IIT Madras

Need: To overcome current barriers of expensive technology and high-end technical expertise

Stiffness of blood vessels has been established to be a very strong marker of cardiovascular problems and cardiac aging. Evaluation of arterial stiffness requires accurate measurement of changes in arterial dimensions and blood pressure. State of the art methods use specialised ultrasound imaging equipment to perform this measurement. The requirement of expensive technology and extensive technical expertise to use that technology, limits wide spread use of image-based arterial stiffness measurement. There is a need for an affordable, easy to use technology that can be deployed widely with minimal training.

Innovation: Intelligent, image-free device for vascular stiffness evaluation

HTIC has developed ARTerial Stiffness Evaluation for Non-invasive Screening (ARTSENS). It is an image-free technology for non-invasively measuring arterial stiffness in an automated manner. ARTSENS uses custom designed ultrasound probe integrated with proprietary intelligent signal processing to identify arterial anatomy, capture vessel wall dynamics and calculate clinically accepted measures of stiffness. Once the probe is placed over the neck, the device directly yields the stiffness measurement within 30 seconds. A hand-held cardiovascular screening device based on ARTSENS technology is currently under development.

Impact: Successful technology validation vis-à-vis sophisticated imaging systems

A pilot study conducted in collaboration with MediScan Systems, Chennai on nearly 100 subjects validated the in-vivo measurements made using ARTSENS against a conventional ultrasound imaging system. ARTSENS device was used in a vascular screening camp conducted by Thambiran Heart and Vascular Institute, Chennai to measure arterial stiffness of more than 50 subjects within a period of about 4 hours. These pilot studies demonstrated ability of ARTSENS to measure arterial stiffness under in-vivo settings. The intelligence embedded in the technology allows personnel to use the device with minimal training. An extensive clinical study of ARTSENS is currently underway at Sri Ramachandra University, Chennai.

For more details please visit: https://htic.iitm.ac.in/newsite/artsens.html

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Oil and gas wells drilling geo-navigation

By Industrial University of Tyumen

Relevant Industry	Oil and gas industry
Phase of development (ready/in process/prototype/ testing sample)	Ready
Keywords	Telesystem / geo-navigation/ screw downhole motors
Description of product/technology	• Services on oil and gas wells drilling telemetry support; • Drilling geo-navigation services; • Wells design services; • Screw downhole motors leasing services; • Services on wells reconstruction by sidetracks drilling • Drilling telemetry support done by telemetric system with hydraulic MWD channel equipped with LWD resistivity meter • Leasing of screw downhole motors with 95mm, 120mm, 172mm, and 240mm diameters • Wells design: building a well's profile
IPR (who owns the technology, patent)	Industrial University of Tyumen
Possible commercial use	Services
What type of cooperation is preferable?	Establishing of joint enterprise for provision of services
Point of contact	Maxim Kolmogorov, Director of Engineering Centre «Oil and gas wells drilling geo-navigation» E-mail: kolmogorovmn@tyuiu.ru

Sensors-witnesses of corrosion

By Industrial University of Tyumen

Relevant Industry	Extraction and transport of oil and oil products
Phase of development (ready/in process/prototype/ testing sample)	The tests are being conducted in the Russian North
Keywords	Corrosion, electrical and chemical potential, sensor
Description of product/technology	The sensors allow to define the speed and depth of corrosion at hard-to-get pipelines parts. *Cntd. next page*

Description of product/technology	Steel cylinders with built-in electrical scheme are being to the protected equipment potential and are places into the aggressive ambient (in which the equipment is either situated or being contacted with). The information about sensor's corrosion loss is transmitted to the check-point with the help of transformed, where the corrosion magnitude is being traced. The sensors are being used to control the inhibitor or electrical and chemical protection. The sensors allow to define the speed and depth of corrosion without conducting the excavation works, and without conducting works connected with protective covering cleaning.
IPR (who owns the technology, patent)	Vitalii Novikov, Head of the Department of physics, control methods and diagnostics, IUT
Possible commercial use	Oil-produced and oil-refining companies
What type of cooperation is preferable?	Selling the ready sensors
Point of contact	Vitalii Novikov E-mail: novik1937@mail.ru

News and Announcements

Intergovernmental organization "International Centre for Scientific and Technical Information" (ICSTI) is looking for partners

The main sphere of interest of ICSTI applies the scientific, technological and information support of international projects in such sectors as: digital economy, the regional systems of scientific and technical information, space exploration and space activities, ecology and environmental protection, human health and nutrition, energy, industry and construction technology, etc. ICSTI provides assistance in the implementation of international projects. In the framework of the joint project activities **ICSTI** is:

- ✓ providing facilities and necessary conditions for project implementation,
- ✓ registering of foreign citizens as project participants in the Russian Ministry for foreign affairs as employees of ICSTI with diplomatic status,
- ✓ providing partners with information and consulting support,
- ✓ providing the project with highly qualified personnel (if necessary),
- ✓ minimizing political costs due to the intergovernmental status of ICSTI (outside of sanctions),
- ✓ minimizing economic costs of international projects (in cross-border transfers),
- ✓ providing legal and administrative support of the project,
- ✓ disseminating of the project results (products) among the 22 ICSTI member States, extending the results of the project through the inclusion of new options (if necessary), etc.

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International Forum of Technological Development "Technoprom-2017"

June 20-22, 2017
"Novosibirsk Expo Centre", Novosibirsk, Russia

Mission of the Forum:
Promoting the technological leadership of the Russian economy

Aim of the Forum:
Elaboration of proposals to increase the competitiveness of the Russian economy within the scope of the "New Industrial Revolution".

Objectives of the Forum:

- ✓ Elaboration of proposals to implement the main outcomes of the "New Industrial Revolution" in Russian industry.
- ✓ Providing close cooperation between leading representatives of science, industry and innovative business.
- ✓ Development of international scientific, scientific and industrial, and innovative cooperation.
- ✓ Promoting investments in high tech start-ups and "national champions".
  Promoting the scientific, scientific and industrial, and innovative sphere in Russia.

The Fifth International Forum of Technological Development Technoprom-2017 will be held over three days:
Day One ("youth") will include events encouraging the involvement of youth into research, science and technology, and innovation.
Day Two ("strategy") will be devoted to the agenda of diversifying the Russian economy against the backdrop of the "new industrial revolution", the challenges of import substitution on traditional markets, and entering foreign high technology markets.
Day Three ("work") will be devoted to the issues of carrying out the Program for Reindustrialization of the economy of Novosibirsk Region as a territorial representation of the New Industrial Revolution.

Per tradition, the Eleventh Siberian Venture Fair, an Expert Symposium called "The Foresight of the New Industrial Revolution: the Challenges, and Advantages", as well as "STI EXPO" will be held within the framework of the forum with the aim of facilitating the development of the leading organizations of the Sixth Wave of Innovation.

The forum organizers are as follows: the Government of the Russian Federation, the Council of the Military-Industrial Commission of the Russian Federation, the Government of the Novosibirsk Region, and the Siberian Branch of the Russian Academy of Sciences.

For general questions	info@forumtechnoprom.com	Tatiana Loginova
For questions on participation in the business program	tp-forum@mail.ru	Alexandra Shestakova

For more information please visit
http://www.forumtechnoprom.com/page/336

Nano and Giga Challenges in Electronics, Photonics and Renewable Energy/Current Trends in Radiophysics

Symposium and Summer School
(Tutorial Lectures)
Tomsk, Russia,
September 18-22, 2017

The NGC/CTRP 2017 conference in Tomsk, Russia is an interdisciplinary forum in education, research and technology innovations in the development of new materials, devices and systems invites academic and industrial researchers to present

tutorial and original research papers dedicated to solving scientific and technological problems in the following areas of electronics, photonics and renewable energy: atomic scale materials design, bio- and molecular electronics, high frequency electronics, fabrication of nanodevices, magnetic materials and spintronics, materials and processes for integrated and subwave optoelectronics, nanoCMOS, new materials for FETs and other devices, nanoelectronics system architecture, nano optics and lasers, non-silicon materials and devices, chemical and biosensors, quantum effects in devices, nano science and technology applications in development of novel solar energy devices, and fuel cells and batteries. We also invite inventors, entrepreneurs and business leaders to explore the unique opportunity provided by our interdisciplinary forum for technical due diligence and potential commercialization of emerging new technologies.

Hosted by Tomsk State University the NGC/CTRP 2017 meeting will be held as a joint event of two conference series, Nano & Giga Challenges (Nano & Giga Forum) and Current Trends in Radiophysics, and will bring together the networks and expertise of both professional forums. The joint conference will will bring together the networks and expertise of both professional forums. The joint conference will be held as the 7th meeting for both forums.

NGC/CTRP 2017 conference will include the school (tutorial lectures), symposium and satellite workshops on innovations, on digital design and computer architecture, and on computational design of materials and devices. Our conferences have a high impact through publication of tutorial books and selected peer reviewed papers in reputable international journals. Our meetings are attended by world renowned experts and young talents alike. Sponsors and exhibitors are welcome and will be supported by the organizers in their needs for networking and marketing of their products and organizations.

For information and registration:
info@nanoandgiga,com.
http://nanoandgiga.com/ngc2017/

We invite institutions, chairs, departments, but also scholars and scientists both from Russia and India to use our e-Newsletter for sharing information about events, conferences, and courses.

We accept also the following types of information for publishing in e-Newsletter:

1) upcoming conferences, seminars, summer/winter schools;
2) grants and contests;
3) scholarships;
4) call for papers;
5) proposals for joint projects;
6) news about achievements and new research directions;
7) information about departments and faculties looking for partners in Russia and India;
8) vacancies.

Contact us: news@rusindia.ru

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Deadline of information acceptance: 20th of every month.
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Herald of Russian-Indian network of young researchers, scholars, students, and professionals, who are interested in developing Russian-Indian relations in the fields of science, technology, education and innovation.