

NEWSLETTER

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Skolkovo | Russia
April 9, 2012

Skolkovo Tech

Skolkovo Institute of Science and Technology

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Edward F. Crawley
President
Skolkovo Institute of
Science and Technology

Dear Friends and Colleagues,

Spring has arrived, and with it a flowering of activities in the growth of Skolkovo Tech.

Several important accomplishments marked the months of February and March:

- The “white paper” initial proposals for our inaugural research centers were received. Researchers from over 30 countries and 360 institutions are represented—a strong international and Russian show of support for the development of the Institute.
- On March 15-16, educators from around the world gathered at Skolkovo to discuss the priorities and learning outcomes for our educational programs.
- We have welcomed our first four Founding Faculty Fellows to the Institute.
- Our search for the first group of 20 students yielded over 100 applications and we are in the process of identifying the finalists.
- At our Center for Entrepreneurship and Innovation, we received over 80 applications from Russian institutes and universities for the Innovation Sponsorship Program.

Finally, we are planning for the sustainability and long-term development of Skolkovo Tech. Over 47 large Russian companies will partner with Skolkovo Tech on building its endowment and developing companies’ R&D programs in Skolkovo.

In the next weeks, we will admit our first group of incoming students in IT and energy, begin interviewing our first candidates for the permanent faculty, and advance plans for our new campus.

Momentum is building, and we welcome you to join the adventure of Skolkovo Tech!

Edward F. Crawley
President

Faculty@SkTech

First Founding Faculty Fellows have joined the Institute

Skolkovo Institute of Science and Technology is proud to announce the appointment of its first set of Founding Faculty Fellows. These Faculty Fellows will be the first members of a group that, together with the MIT faculty members of the MIT/SkTech initiative, will participate in shaping and launching this new university built on the “triple helix” model integrating teaching, research, and innovation. Some of the activities that will involve the Founding Faculty Fellows include:

- Recruiting for Skolkovo Tech faculty positions
- Service on the faculty search committees
- Participating in educational design process teams
- Involvement in international research centers proposal review
- Defining broad research directions through a Foresight exercise
- Designing and implementing the student admissions process
- Assisting with new institutional policy development
- Planning the campus and research facilities

The process of selecting the first set of Founding Faculty Fellows was extremely competitive. Skolkovo Tech received close to 300 applications from leading scholars from all over the world, representing top universities and national labs. The selection process involved reviews by faculty from the MIT/SkTech Initiative and it also included a number of distinguished members of the Skolkovo Foundation's Scientific Advisory Council.

It comes as no surprise that the first four Founding Faculty Fellows are accomplished full professors at leading institutions:

Dr. Vadim Gladyshev is a Professor of Medicine and Director of the Center for Redox Medicine at the Harvard Medical School. He is also an Associate Member of Broad Institute of Harvard and MIT and a Full Member of Dana Farber Cancer Center.

Dr. Zinetula Insepov is a Computational Materials Scientist at the Energy Technology and Mathematics, and Computer Science Divisions of Argonne National Laboratory at the University of Chicago-Argonne. He is also an Adjunct Professor at the School of Nuclear Engineering at Purdue University.

Dr. Konstantin Severinov is a Professor of Biology at the Waksman Institute, Department of Molecular Biology and Biochemistry at Rutgers University. He is also the Head of Laboratory of genetic regulation of prokaryotic mobile genetic elements at the Institute Molecular Genetics of Russian Academy of Sciences in Moscow, Russia.

Dr. Denis Zorin is a Professor of Computer Science and Mathematics at the Courant Institute of Mathematical Sciences of New York University.

For more information on the Founding Faculty Fellows program and Faculty Search, please contact Mikhail Myagkov, Vice President for Academic Affairs, at myagkov@skolkovotech.ru

Research@SkTech

Search for permanent resident faculty positions yields over 200 applications; next application deadline set for May 15

Skolkovo Tech is in the process of selecting its first set of permanent faculty. We have invited applicants to the Institute's five focus areas: Information science and technology, Biomedical science and technology, Energy science and technology, Space science and technology, and Nuclear science and technology. Additionally, faculty with an interest in Innovation and Entrepreneurship who are engaged in scholarly research within one of the above areas, or who could join as specialists in the Skolkovo Tech Center for Innovation and Entrepreneurship, are invited. We have invited applications for Tenured, Tenure-Track and Untenured positions. The key qualities that Skolkovo Tech seeks in its Faculty are research excellence, commitment to education, and involvement with innovation and entrepreneurship.

The search process will consist of multiple rounds with a goal of more than 200 permanent faculty members by the end of the decade. The first round deadline was February 15th, and the Institute received about 200 applications. The applications are being reviewed by the search committee, which includes MIT faculty (who are members of the SkTech/MIT Initiative) and the new SkTech Founding Faculty Fellows. The MIT faculty search committee chair is Bruce Tidor, who is an MIT Professor of Biological Engineering and Computer Science.

The next deadline for faculty applications is May 15th. Skolkovo Tech will continue to expand the outreach to interested participants, explaining the opportunities that the new university presents to innovative researchers and teachers, to ensure the strongest possible applicant pool in subsequent recruiting rounds. For more information on the faculty positions, see <https://sktech-search.mit.edu/>

6 Nobel Laureates applied to participate in building Skolkovo Tech Research Centers

On March 13th, Skolkovo Tech closed the application window for white paper submissions that will lead to the first round of awards for Research Centers. We received 129 white papers from more than 350 universities and research institutions in almost 30 countries.

Research Centers will be collaborative, inter-disciplinary, international initiatives following innovative approaches, designed to create fundamental and transformational new science and technology, and providing a base for Skolkovo Tech's innovation activities. Furthermore, each Research Center is expected to contribute to graduate education at the university by developing curriculum and educational materials.

Many of the proposals are of very high quality, and involve international leaders in their respective fields. Among the scientists and engineers participating in the proposals are six Nobel Laureates, one Fields Medal winner, and numerous members of various national academies, as well as many outstanding young researchers.

The white papers are now being peer-reviewed by panels of international experts to select a set that will be invited to prepare full proposals for the first round of Research Centers. In addition, a number of planning grants will be awarded to support further development of Research Center teams and proposals, enabling the teams to participate in future rounds of competitive submissions.

Planning Award notifications and invitations to submit full proposals are expected to be issued on April 14th. Invited full proposals are due on June 1, and Research Center award decisions for the first round will be made by late June.

To learn more about Skolkovo Tech research programs, and register for notification of upcoming solicitations and research events, see <http://www.skolkovotech.ru>

For more information about Skolkovo Tech's Research Center program, please contact Dr. Ivan Sherstov, Director of Research, at sherstov@skolkovotech.ru or contact SkTech-rc-call@mit.edu

Further information can be found at the SkTech/MIT Initiative website: <http://web.mit.edu/SkTech>

Education@SkTech

On March 15-16, Skolkovo Tech held its inaugural Educational Programs and Curriculum Design Conference at Skolkovo

The March Educational Conference brought together key players from the scientific, engineering, innovation, and educational communities in Russia, the US, Europe, and around the world to discuss novel ideas for master's degree programs at Skolkovo Institute of Science and Technology. The primary purpose of the conference was to begin designing educational programs and curricula that meet the needs of long-term stakeholders, such as achieving desired educational outcomes. Approximately 20 faculty members from MIT, as well as four other leading international universities, and about 20 Russian institutions participated in the conference. Representatives from over 20 other stakeholders, including Russian and multinational companies, research communities, academic institutions, and startups—all of which need future intellectual contributors and innovators—contributed to the discussions over the course of two days.

A significant part of the conference was devoted to critical pilot education programs in information science and technology and energy science and technology, which will be launched at Skolkovo Tech in the fall of 2013 with the first group of master's students. We are confident that the outcome of the collaborative activity at the conference has already generated new thinking about educational and learning models that will benefit higher educational institutions, research institutes, and companies in Russia and around the world.

Bram Caplan, Director of Student Affairs at Skolkovo Tech, noted, "We believe deeply that the most important people at Skolkovo Tech will be the students. The Institute is charged with educating coming generations of technology entrepreneurs and innovators. This week, we are bringing together Russian and international experts

to begin the design of a unique educational curriculum and degree programs that will emphasize the knowledge, skills, attitudes necessary for technological innovation."

Another important outcome of the meeting was the initial development of a taxonomy, or listing of the knowledge, skills, and attitudes that Skolkovo Tech graduates should possess as they leave the university. This will be the basis for stakeholder engagement, educational design, and eventually, aligned assessment of student learning.

Skolkovo Tech closes its first round of master's students recruiting on March 30

During February and March, Skolkovo Tech staff visited more than two dozen higher education institutions all across Russia to spread the word about the program to Russian students and professors. Skolkovo Tech received more than 100 applications for the 20 Master's Fellowships, and will now conduct a two-stage selection process. Forty applicants will be invited to Moscow for an intensive three-day weekend, which will include an English-language examination, personal interview, and a series of group activities. Immediately following this event, Skolkovo Tech will name its first group of master's students.

This inaugural class of master's students will spend the 2012-2013 academic year at leading international institutions, taking master's-level courses and conducting research projects on the innovation ecosystems at their host institutions. In the summer of 2013, the Skolkovo Tech students will return to Russia to complete their studies. A key component of the inaugural master's program is the deep participation of the students in the conceptual and practical design of Skolkovo Tech's entrepreneurship, innovation, and education programs. Skolkovo Tech will begin to offer master's courses in the Fall of 2013.

For more information about Skolkovo Tech students and admissions, please contact Bram Caplan, Director of Students at caplan@skolkovotech.ru or visit the student application website <http://apply.skolkovotech.ru/>

Innovation@SkTech

Innovation Sponsorship Program yields many interesting proposals

In January 2012 the Center for Entrepreneurship and Innovation at Skolkovo Tech (CEI@SkTech) announced the launch of the inaugural Innovation Sponsorship Program (ISP) in support of building an innovation ecosystem at and around Skolkovo Tech. The ISP will competitively award translational research funds and mentor projects by Russian research groups for a period of one year with dual goals to bridge the gap between the laboratory and marketplace and to serve as a catalyst for innovation and entrepreneurship in the academic and university research ecosystem. During the inaugural year, the ISP will focus on research groups at Russian universities and research institutes.

March 1, 2012 was the final date for applications for the Innovation Sponsorship Program. The program is off to a good start, with more than 80 applications from scientists and engineers from 27 Russian universities and research institutes, across all 5 Skolkovo Tech areas of interest: Space, IT, Energy, Biomedical and Nuclear. This is a clear indicator of the vitality of Russian innovation, and a validation of the necessity for invention-to-innovation programs like the ISP.

An international review panel consisting of scientists, entrepreneurs, and technology commercialization specialists has recommended advancing 11 proposals to the next stage. Selection criteria were based not only on scientific and technological excellence of the proposals, but also on the perceived ability of the research groups, with the assistance of CEI@SkTech, to advance their commercialization agenda within the next 12 months.

ISP Award notifications are expected by the end of June 2012.

Skolkovo Foundation Conference on Entrepreneurial Universities

CEI@SkTech participated in a unique gathering of leading entrepreneurial universities to share best practices and their potential application to the Russian Federation's plan to diversify economic development initiatives in the RF. The conference was held on February 21 and 22 at the Moscow School of Management at Skolkovo.

The conference was opened by Oleg Alekseev, Vice President of Educational Programs of the Skolkovo Foundation; Igor Agamirzyan, the Director General of RVC; Edward Crawley, founding President of Skolkovo Tech; and Ilia Dubinsky, Director of the Center for Entrepreneurship and Innovation of Skolkovo Tech. The major issues of the conference were how a university can be a center of innovation, and the role of technological universities in today's markets.

Edward Crawley and Ilia Dubinsky presented the concept of Skolkovo Tech and pointed out that entrepreneurship and innovation will be closely integrated into university research and education from the very beginning. To foster integration, the Center for Entrepreneurship and Innovation has been designed to operate from the very first days of existence of Skolkovo Tech, providing educational, mentoring, industry liaising, and commercialization services to the community of Skolkovo Tech and its affiliates, and administering vigorous research programs in related fields.

The speakers emphasized that entrepreneurial research universities have become important contributors to the economies of their countries, ultimately benefitting society through commercialization of the practical results of their research. Skolkovo Tech has an ambitious goal to become one of the leading sources of technological innovation in the coming years.

Proceedings of the conference can be found on the Skolkovo Foundation website.

For further details about ISP, please contact Ilia Dubinsky, Director of CEI@SkTech, at dubinsky@skolkovotech.ru

Leadership@SkTech

Skolkovo Tech is a rapidly growing organization, acquiring new talent to work on the ramp up of research, education, innovation, and development functions. The Institute currently employs over 20 professionals, 40% of whom are foreign specialists.

In March, Skolkovo Tech welcomed **Dr. Mats Nordlund** as Vice President of Research. Dr. Nordlund has more than 15 years of experience in leading industrial and academic organizations. In his different roles in industry, he has lead the development of many new products, managed global research and development organizations with large budgets, and also designed and coordinated industry/university and industry/government collaboration programs. In his academic leadership roles he has managed innovative educational programs, designed new doctoral programs, developed research policy at the EU level, and facilitated the renewal of existing academic programs.

In 1997, Dr Nordlund began his industrial career as the Director of Technology Strategy and Acquisition at the corporate technology function for Saab AB (Military Aerospace) in Linköping, Sweden. In this role, Dr. Nordlund developed all aspects of the corporation's innovation system, which involved strategic technology planning, the implementation of innovation tools, developing the company's patent activity and setting up innovation-based off-set programs to support the sale of the company's products. In 2000, Dr. Nordlund transferred to the role of Director of Engineering at Saab Marine Electronics. This subsidiary of Saab AB was acquired by Emerson Electric (EMR) in 2001 and the company's name was changed to Rosemount Tank Radar AB. In his role as Director of Engineering, Dr. Nordlund has developed a global engineering organization, overseen the development of many new products, and implemented a new development and innovation process at the company. In 2010-11, he worked for four months at



Dr. Mats Nordlund joins Skolkovo Tech as Vice President of Research.

Emerson corporate headquarters in St. Louis as the head of the company's first corporate-wide breakthrough innovation project, taking the project through its discovery phase.

While in industry, Dr. Nordlund has provided important contributions to the development of industry/university partnerships, as well as research policy formation and execution. In 2004 he served as Chair of the Strategic Panel in Applied Engineering Science for the EU's New and Emerging Science and Technology Program (NEST). In 2005 he served on the EU Commission's High Level Expert Group (HLEG) that provided the policy document

Development@SkTech

for the EU's frontier research initiative, which led to the formation of the European Research Council (ERC). He is currently serving on the Advisory Board of the Mechanical Engineering Program at Chalmers University of Technology and he was also appointed as Adjunct Associate Professor in Product Development.

Prior to joining industry, Dr. Nordlund had several leadership positions in creating and implementing new innovative academic programs. During 1996-97, he implemented and managed the new System Design and Management Program (SDM) at the Massachusetts Institute of Technology (MIT). During 1994-95 he managed the design of the Swedish national research program in engineering design (ENDREA). He served as Secretary to the Board of ENDREA from 1995-2001.

Skolkovo Tech continues search for innovative leaders

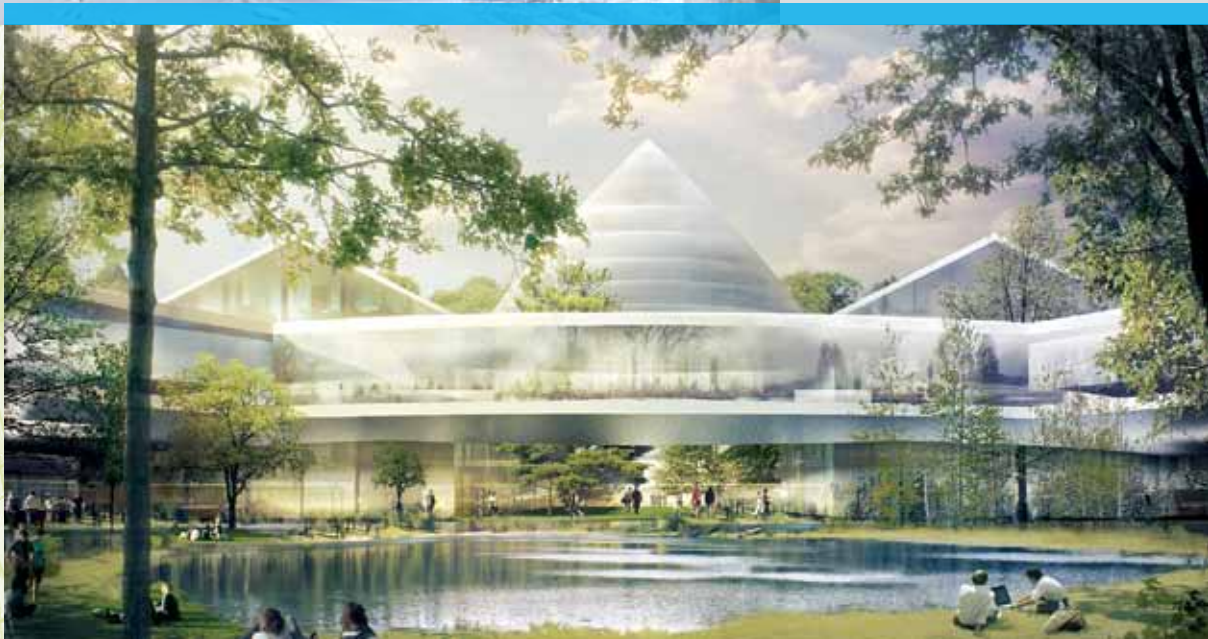
Skolkovo Tech is actively seeking interested, committed and qualified applicants for the faculty and staff positions.

Descriptions of staff positions can be found on www.skolkovotech.ru.

Russian companies to contribute significant funds to Skolkovo Tech's endowment

Following the decision by the Presidential Commission on Modernization of the Russian Economy (i-russia.ru), the companies in which government has a controlling stake are now considering transferring at least 1% of their R&D funds to support the endowment of Skolkovo Tech. According to Arkady Dvorkovich, Aide to President Medvedev, this will amount to around USD 1 billion by 2014. These funds will be used to support research and education at Skolkovo Tech, and help engage R&D clusters of leading Russian companies in Skolkovo Tech research centers and graduate programs. This will allow for a more effective interaction between research and industry, providing for a mutually beneficial cooperation along the strategic priorities for Skolkovo Tech and industry.

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