Innovation and Intellectual Property Laboratory

Academic Members of the Innovation and Intellectual Property Laboratory

- Kelvin Willoughby, Professor & Director
- Zeljko Tekic, Assistant Professor
- Alexander Ivanov, Doctoral Student (Tekic)
- Maxim Malyy, Doctoral Student (Tekic)
- Anja Tekic, Doctoral Student (Willoughby)
- Dariya Satikova, Doctoral Student (Willoughby)
- Punyapat Saksupapchon, Doctoral Student (Willoughby)
- Ekaterina Kotenko Lengold, Doctoral Student (Willoughby)
- Georgy Klushin, Doctoral Student (Tekic)
- Kirill Golubev, Doctoral Student (Willoughby)
- Maria Goldshtein, Doctoral Student (Tekic)

The Innovation and Intellectual Property Laboratory (INIP Lab) consists of an interdisciplinary group of researchers at Skoltech whose scholarship, empirical research and innovative activity are united by a focus on the role of intellectual property in the process of technological innovation. The members of the Laboratory are drawn from a variety of academic fields and disciplines, including strategic management of technology, entrepreneurial strategy, intellectual property management, intellectual property law, business law, industrial engineering, aerospace engineering, organization studies, product development, information science, the management of complex systems, and innovation studies more generally (with some active in multiple fields). These researchers, despite the diversity of their skills, knowledge and backgrounds, work together in a common academic domain, which is innovation and the management of intellectual property.

Intellectual Platform of the Innovation and Intellectual Property Laboratory

The research and innovation agenda of the Innovation and Intellectual Property Laboratory is based on the following four core convictions:

1. Technological innovation, including technology entrepreneurship and the commercialization of science and technology, requires sophistication and prowess in managing intellectual property.

2. Expertise in the management of intellectual property matters not just for lawyers, but also for a wide range of people involved in innovation, including: technology entrepreneurs, managers of established technology-intensive corporations, product designers, investors, technology-transfer professionals, R&D managers, innovation-oriented academic researchers, regional innovation infrastructure professionals, IP traders and specialized IP intermediaries, technology marketing professionals, software and IT service providers, and also public policy leaders.

3. The management of intellectual property is already established as a vibrant functional domain in industry; and while academia has been much slower than industry in recognizing the central importance of IP management as a professional field, academia is beginning to catch up with industry in recognizing this field of management as a distinct function in business that deserves serious study in its own right, just like any other practical subject matter in business.

4. Intellectual Property Management is becoming visible as a new academic field, and systematic high-quality research about the strategic management of intellectual property, within the process of technological innovation, is a field in which Skoltech can make an intellectual and practical contribution, both within Russia and internationally.
Current Research Projects of the Innovation and Intellectual Property Laboratory

- Intellectual property and open-innovation strategies in product development projects
- Co-creation as an organizational strategy for new product development
- Intellectual property rights and information technology, with a special emphasis on the protection of computer software inventions and issues related to software-as-service
- Development of a context-enhanced patent analytics platform
- Smart patent analysis for technology strategy and business intelligence (use of “big data” analytics for evaluation of patent information)
- Valuation of inventions through statistical analysis of patent data
- The role of intellectual property management in the international commercialization of lithium-ion battery technology
- International licensing strategy and IP management in the satellite data industry
- Legal issues in the localization of personal data in cloud computing services
- Implications of recent trends in the law of patent-eligible subject matter on the strategies of entrepreneurial technology firms
- Emerging legal issues in the patenting of intangible process inventions
- Patent-eligible subject matter and innovation in biomedical technology
- Impact of international patenting behavior on national economic development
- Patent analysis as a tool for planning scientific and engineering research projects
- Cross cultural issues in R&D project management
- Strategies for solving the problems of backlog and unreliable examination quality in the global patent system
- Intellectual property strategy and entrepreneurial technology strategy
- Entrepreneurial ecosystems in Russia and strategies for the development of university-based technology start-ups.
- The strategic management of intellectual property in the development of digital gaming platforms for online education.
- Incorporating intellectual property considerations in to the design of modular products and modular manufacturing systems.

The INIP Lab meets weekly at Skoltech for an academic seminar where members of the group take turns in making a presentation and leading a round-table discussion on the topic of the seminar. Distinguished academic or practitioner guests sometimes also makes presentations. The purpose of these weekly seminars is fourfold: (a) to provide constructive criticism of the research of each member of the group to improve the quality of his or her research and enhance the quality of subsequent publications; (b) to build up a shared intellectual territory and research culture at Skoltech in the field of innovation and intellectual property management; (c) to act as a seed-bed for ideas for future externally funded collaborative research projects; and, (d) to assist Ph.D. students to learn the art of carrying out academic research in a collegial academic environment. The weekly seminar also provides a practical vehicle for the course, Innovation and Intellectual Property Studies Doctoral Seminar, which is a compulsory component of Skoltech’s Ph.D. program in Innovation and Intellectual Property Management.

Research Strategy of the Innovation and Intellectual Property Laboratory

The research strategy of the INIP Lab is based on recognizing that Intellectual Property Management is both an academic field in its own right and a lively zone for the interaction of other academic fields. Additionally, intellectual property management is a core function of the
technological innovation process in business, making it centrally important to the academic mission of Skoltech. Intellectual property management lends itself to interdisciplinary research both within the domain of innovation studies and between innovation studies and fields of scientific and engineering research at Skoltech, such as bioinformatics, computer vision, data science, materials science & engineering, photonics and energy technology, etc. Thus, academic work in intellectual property management may help synergize and facilitate practical innovation from scientific and engineering research at Skoltech. It may also be a focus for cooperation between our Laboratory and the various CREIs (Centers for Research, Education and Innovation) at Skoltech.

The research strategy of the INIP Lab is also a response to the practical reality that excellence and high productivity in research—especially at a small young university such as Skoltech—requires concentrating our intellectual and other resources. With this in mind we have adopted what we call the “focus and deepen capabilities” research strategy, as opposed to the “broad brush” research strategy, for innovation studies at Skoltech.

A guiding concept behind Skoltech’s original planning, developed in partnership with MIT, was the idea that any university with innovation as its leitmotif must have credible academic capability in the subject of innovation studies. Skoltech’s INIP Lab team is devoted to pursuing the original Skoltech / MIT vision by concentrating our efforts in one particular sub-field of innovation studies.
where we believe there is the greatest opportunity for us to leverage our resources for maximum impact, both in Russia and internationally. That field is intellectual property management.

Our “focus and deepen capabilities” research strategy builds upon emerging research strengths at Skoltech, upon scholarly activities that already exist, and upon the chosen intellectual territories of the university’s founding faculty members in innovation studies. The Innovation and Intellectual Property Laboratory (INIP Lab) at Skoltech draws upon, concentrates and cultivates Skoltech’s current academic expertise in innovation studies.

Recent IP & Innovation-related Publications of Members of the Innovation and Intellectual Property Laboratory

Academic Publications

- M. Malyy and Z. Tekic, “The role of universities in Russian startup ecosystem,” Proceedings of the 1st Regional Conference on Entrepreneurship and Open Innovation in University - Industry
Collaboration, University of Novi Sad, Serbia, 20-23 September 2016, Eds. Z. Tekic Z. and P. Vrgovic (iDEAlab Conference 2016), pp. 73-79.


Working Papers and Publications in Progress


Recent Invited Presentations and Conference Presentations of Members of the Innovation and Intellectual Property Laboratory

• K. W. Willoughby, Keynote speaker, Startup Village 2015, Skolkovo Innovation Center, Annual Conference organized by Skolkovo Foundation, Moscow, Russia, 2 June 2015. Topic: “Why is the Subject of Intellectual Property Important for Startups?”

Current Educational Courses Developed and Offered by Faculty Members of the Innovation and Intellectual Property Laboratory

Masters Courses
• Ideas to Impact: Foundations for Commercializing Technological Advances  MC06002 [6 credits]  - Z. Tekic
• Intellectual Property and Technological Innovation  MC06006 [6 credits]  - K. W. Willoughby
• Technology Entrepreneurship  MC06008 [6 credits]  - K. W. Willoughby & Z. Tekic

Ph.D. Courses
• Technology Commercialization: Foundations for Doctoral Researchers  PC06002 [6 credits]  - Z. Tekic
• Intellectual Property, Technological Innovation and Academic Research  PC06006 [6 credits]  - K. W. Willoughby
• Philosophy of Science, Technology and Innovation  PE06026k [6 credits]  - K. W. Willoughby

Ph.D. Program in Innovation and Intellectual Property Management
  - Contact Prof. Willoughby at kelvin@skoltech.ru for details

Practical Innovation Services Currently Offered by Members of the Innovation and Intellectual Property Laboratory
• Startup Club  - M. Malyy, and other members of the INIP Lab
• I2I Café  - Z. Tekic
• ISP Course  - D. Satikova “The Lord of the IP (so many Intellectual Property types and one Knowledge to rule them all)” (a primer on Russian IP law and systems for entrepreneurs)
• IP Analytics  - Training in the use of IP data and IP-related data and analytical services for research planning and innovation support. Various members of the INIP Lab
Skoltech’s *Innovation and Intellectual Property Laboratory* and Russia’s Innovation Economy

There is a groundswell of interest in intellectual property emerging in Russia, including the topic of how Russian technology enterprises may flourish by skillfully utilizing the IP systems and markets of the rest of the world, as well as those of Russia. The extraordinary interest shown by the Russian public in Skolkovo’s “Patent School” is one indication of that interest. Russia’s recent accession to the World Trade Organization, with the obligations that that has brought with it for Russia to fully develop its IP laws and institutions, is also a factor. Russia’s serious moves in this direction have also been recognized by the UN’s Geneva-based World Intellectual Property Organization, that has opened a satellite office in Moscow, located in Skolkovo. The IP Center of the Skolkovo Foundation is also active in this field, and provides relevant and useful IP management services to innovative enterprises in the broader Skolkovo community. We envision that by cultivating relationships with the range of institutions and people in Russia who are thirsty for knowledge about intellectual property and its role in technology-related business, we will find a welcome outlet for both our research and practical education-and-training services related to our research.