



St Petersburg — Moscow Institute of Physics and Technology (MIPT), Nornickel and IBM entered into an agreement to establish a Competence Centre at Moscow's MIPT which will leverage open source software and tailor-made solutions to conduct research and provide training in digital technologies for the mining industry.

The respective agreement was signed on 6 June 2019 on the sidelines of the ongoing St Petersburg International Economic Forum by Sergey Batekhin, Senior Vice President and Head of Sales, Procurement and Innovation at Nornickel, Iris Dzeba, IBM's Country General Manager for Russia and the CIS, and Nikolay Kudryavtsev, rector at Moscow Institute of Physics and Technology.

The Centre will focus on training students, conducting research, developing digital ecosystems and implementing robust IT practices in such areas as blockchain, IoT and optimisation systems.

The joint project strives to improve educational practices and development of solutions for the mining industry using open standards and open source software, including distributed ledger technology (DLT). The Competence Centre will also develop advanced applications for the mining industry.

To this end, MIPT will prepare and launch master's and postgraduate curricula backed by qualified academic staff with relevant expertise. Master's curriculum in Blockchain has been prepared and will kick off as early as in autumn 2019 as MIPT is getting ready for admissions.

MIPT will also create a training platform, including a computing landscape to support research and education for Nornickel's uses, and procure to provide IBM-based prototypes for the mining industry.

IBM will provide the new Centre with access to specialised R&D materials and solutions as well as its educational resources and services for software developers.

Nornickel will both support students and postgraduates with stipends and make available its production sites to the Centre for conducting research and testing solutions.

MIPT plans to train 20–24 students in 2019–2021. Its master's curriculum in Blockchain will likely include such modules as Introduction to Blockchain (DLT), Cryptoanalysis, Theory of Games, Graphene Blockchain Tutorial, Ethereum Blockchain Tutorial, Hyperledger Fabric Tutorial, and Tokenomics.

In addition to exploring a variety of blockchain platforms and being profoundly trained in mathematical theory, students and postgraduates will learn diversified blockchain uses, cryptocurrency exchanges, stablecoins, tokenisation platforms, related services such as Custody, KYC/AML, crypto derivatives and trading robots for cryptocurrency exchanges.

Master's curriculum in Blockchain will span four semesters (c. 5,500 academic hours).

"Nornickel's strategy seeks to develop its talent pool in cooperation with Russia's leading technical universities resulting in new competencies with a focus on digital technology. The new Centre will both provide training in digitalisation and support research, development and implementation of promising technologies, including distributed ledger technology, for Nornickel's uses," noted Sergey Batekhin, Senior Vice President and Head of Sales, Procurement and Innovation at Nornickel, during the official signing ceremony.

"Blockchain, artificial intelligence and cloud technologies allow us to build the business of the future — today. IBM has several hundreds of projects around the world related to the introduction of the blockchain, including in Russia. The demand for this technology will only grow, so now we need to train specialists with the necessary knowledge and skills, by combining our efforts with leading companies and universities like Nornickel and MIPT," said Iris Dzeba, IBM's Country General Manager for Russia and the CIS.

"MIPT is the country's leading technical university deeply rooted in science and technology. We have both a strong foundation and the infrastructure to create advanced cross-cutting centres and curricula. We join our forces with such global leaders as IBM and Nornickel to launch the competence center and master's degree in Blockchain. The world's leading businesses are keen to develop this technology, and MIPT fosters the academic excellence to make this happen," MIPT Rector Nikolay Kudryavtsev commented.

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PJSC "MMC NORILSK NICKEL" is a diversified mining and metallurgical company, the world's largest producer of refined nickel and palladium and a leading producer of platinum, cobalt, copper and rhodium. The company also produces gold, silver, iridium, selenium, ruthenium and tellurium.

The production units of “NORILSK NICKEL” Group are located at the Norilsk Industrial District, on the Kola Peninsula and Chita region in Russia as well as in Finland and South Africa.

PJSC “MMC “NORILSK NICKEL” shares are listed on the Moscow and on the Saint-Petersburg Stock Exchanges. PJSC “MMC “NORILSK NICKEL” ADRs trade over the counter in the US and on the London and Berlin Stock Exchanges.

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IBM has been present in Russia and the CIS countries for over 40 years. It is a leading provider of high-value solutions and services to clients in a variety of industries including government, telecommunications, healthcare, finance, retail and oil and gas. IBM has offices in a number of major cities across the Russian Federation, Azerbaijan, Kazakhstan, Ukraine and Uzbekistan as well as important facilities and resources to support its clients and partners.

Moscow is home to the IBM Client Center and the IBM Science and Technology Center which hires some of the most talented technical specialists who work side-by-side work with IBM’s global teams on the development of next generation technologies.

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MIPT is one of the leading Russian universities in the areas of physics and technology. Nationally and internationally, the Institute has a reputation for qualified graduate training. MIPT students and alumni are members of an academic elite capable of fully realizing their potential thanks to the interdisciplinary scientific environment they are exposed to. The strong and diverse alumni community includes top-notch researchers, entrepreneurs, politicians, and creative people, many of whom have been recognized with prestigious international awards. Phystech the university and “phystechs” — its students and graduates — are proud and supportive of each other.

*6 June 2019*