

Russia and Egypt are to launch unique education programs following the deal on building Dabaa nuclear power station

The intergovernmental agreement on the construction of the Dabaa nuclear power station signed in 2015 consisting of four nuclear power units, 1,200 megawatt (MW) each, is finally to come into effect. The 3,500 pages contract has been harmonized by the two parties in the beginning of this year. According to Egyptian Minister of Electricity Mohamed Shaker, *«the ministry has completed negotiation of a construction contract, considered one of the most important contracts within the nuclear power plant's project consisting of four documents, which will be signed with the Russian Rosatom company»*. The plant might become the largest construction project carried out by Russia and Egypt since the Aswan Dam.

Given the fact that Egypt is literally creating a new nuclear industry, the country obviously lacks high-skilled professionals in this industry. According to Egypt's well-known businessman and entrepreneur Dr. Hussein El-Shafi, there are simply no high-skilled workers in the nuclear industry in Egypt because there are no educational programs related to this field in the country's universities. Considering Russia's enormous expertise in building nuclear power plants and broad professional practice based on scientific research, both Russian and Egyptian ministries of education have agreed to start special education programs at Russian and Egyptian universities to prepare high-skilled professionals to work at the station. The agreement involves launching double-degree diploma programs as well as recruiting a larger number of Egyptian students to Russian universities to earn their degrees in the field of the nuclear energy. Egyptian students (as any other international students in Russia) will first take a one-year Russian language course and then they will proceed to their degree programs. Meanwhile, some major programs in the field of the nuclear energy in Russia will be taught in English.

Among the top universities that will become the fundamental base for future Egyptian nuclear engineers will be the Ural Federal University located in the Russian city of Ekaterinburg. The university has the entire Energy Institute that offers more than 10 degree programs including nuclear energy programs. Earlier last year Dr. El-Shafi held a meeting with the rector of the Ural Federal University Mr. Koksharov and the director of the University's Energy Institute to discuss the prospects of realization the nuclear energy program in Egypt initiated by Egyptian President El-Sisi. «A large-scale project like this that is going to start its realization within 12 years will certainly require a huge number of high-skilled workers. We are interested in double degree programs carried by the Ural Federal University and some Egyptian universities as well as in launching UrFU nuclear energy departments in Egyptian universities and Russian language courses», said El-Shafi. The university, on its part, would provide preparation of future Egyptian engineers at the most professional level and would offer its cooperation in translation the research works and educational materials in English and in Arabic to facilitate the process for students.

The decision to visit this particular university by Dr. El-Shafi is simply explained. Ekaterinburg is located near Beloyarsk NPP, the nuclear station that operates on the base of state-of-the-art equipment and technologies. For instance, one of the plant's units is built on the unique technology that allows both to decrease consumption of nuclear fuel and to utilize it. Needless to say that the plant is truly a treasure for nuclear engineering students as it allows them to see and experiences all the operation processes.

Nevertheless, speaking about nuclear energy agreements the security factor becomes one of the most essential ones. Apart from the safety of equipment, technologies and professional expertise of engineers and workers positive political and economic relations between the parties are very important. The Ukraine crisis is the perfect example of how political unrest can turn a country into a nuclear graveyard. However, chances that Egypt will follow the Ukraine path are almost none. High responsibility of both Egyptian and Russian authorities in the sphere of nuclear cooperation as well as the trust between President Putin and Egyptian President El-Sisi is high enough to continue collaboration in this very complicated and delicate field.