

Polytechnic University installs eco-friendly filters for wastewater treatment



On December 9, an innovative surface runoff treatment filter (FSRT) developed at SPbPU was installed near the Technopolis Polytechnic research building. In the near future, there are plans to equip with new filters about a dozen more sewer manholes in this area of the campus.

The filters improve the performance of the storm sewer network and enhance the environmental status of Polytechnic. All this is done in accordance with a comprehensive program for the development of the university area, which provides not only for the creation of advanced technologies, but also their application.

“Our university has the status of a research university, and this obliges us not just to develop innovations, but also to implement them in the economy,” said Mikhail GREKOV, vice-rector for economic work at SPbPU. “In previous years, advanced technical solutions for energy saving have been implemented at the Polytechnic Campus, and the grant we won for the organization of separate waste collection marked the beginning of real work on the use of our own developments in the environmental sphere. Now an important step has been made in solving the problem of local treatment of surface runoff from the campus. The introduction of such filters allows us to update our infrastructure in accordance with the requirements of the time. We use the university’s territory for a scientific experiment, so that in the future we can apply our developments in the city. Taken together, all the implemented technologies and those whose implementation is still planned are included in the concept of “Smart City,” whose task is to improve the quality of people’s lives.”

FSRTs are filter cartridges that contain purification materials inside. In fact, they are cartridges, reminiscent of those used in the home to purify tap water. The design allows the FSRTs to be mounted in sewage wells and create local treatment facilities in the city. In-situ studies of the filters have been conducted by employees of the SPbPU Civil Engineering Institute together with Vodokanal of St. Petersburg since 2015.

The surface wastewater treatment technology developed at Polytechnic University was awarded a silver medal at the St. Petersburg Technical Fair in 2017 and a gold medal in 2018.