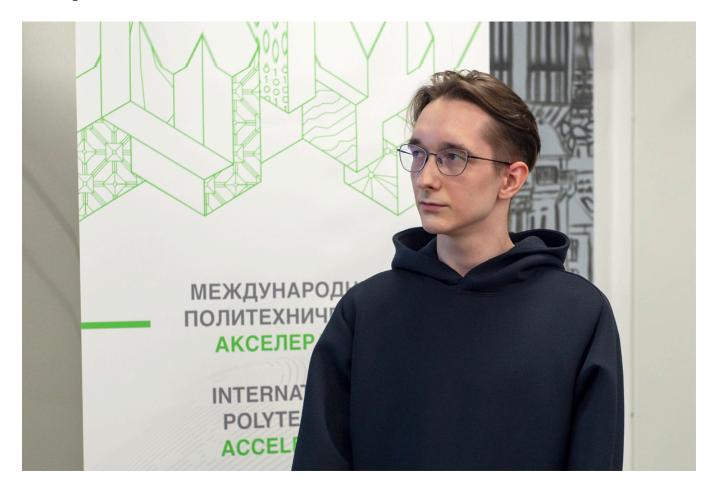# A team from the International Polytechnic Accelerator is developing an analogue of the popular simulation environment

Participants of the International Polytechnic Accelerator, ICST Master's degree students Dmitry Subbotin and Ilya Shmelev, are working on the promotion of a project to create an AnyDynamics modeling environment. Its uniqueness lies in the fact that such an environment could become an alternative to MatLab software, which is freely available in Russia and China. At the end of 2022, along with the other Accelerator teams, the guys presented the interim results of their work, which interested the members of the expert panel. In an interview with the International Office at SPbPU, Dmitry Subbotin talked about how the idea of the AnyDynamics project came about, what its relevance is, and what prospects are waiting for the team.

— Dmitry, at the final presentation in December your project aroused the interest of the experts from Russia and China. Can you tell us what it is about?

— AnyDynamics is software that is a simulation modeling environment. It can be used to create projects of any level of complexity. AnyDynamics can compete

with the foreign Simulink (MatLab) and Modelic language environments. As you know, access to these environments is currently limited in Russia and China. This is partly the reason for the serious interest of Chinese experts. In addition, this is a very flexible software, you can adjust it to your needs.

— **Who is involved in the development and support of the project?**

— This is done by the MvStudium group, which was created in 1996 by polytechnics and industry representatives. The group also includes our tutor Yuri B. Senichenkov, Professor of the Higher School of Software Engineering, Doctor of Engineering. Polytechnic students and postgraduates work with AnyDynamics as part of their project activities. Prof. Senichenkov once introduced us to the product during the «Introduction to Professional Activity» course. Later we had several encounters with AnyDynamics both at user and programmer level. My partner Ilya Subbotin used the software when he was working on his graduation project. He needed to build a model of coronavirus infection spreading. We appreciated the simplicity and convenience of working with AnyDynamics, so we decided to address the issue of its promotion in foreign markets.

— **What is the main goal of your project?**

— Introduction of a convenient and accessible environment for modeling

in industry and education. We made sure that everyone, regardless of programming knowledge, can build computer models based on their knowledge in a particular application area.

— **What is the relevance of the project today?**

— It will be especially in demand in the countries affected by software sanctions. We are discussing entering the Chinese market, as AnyDynamics could become a worthy replacement for the modeling environment that has gone away.

— **What did the participation in the International Polytechnic Accelerator give your team?**

— First of all, it gave us confidence. We saw that you can always find a partner who cares about the end result as much as you do. At some points our eyes were opened to new opportunities to promote our project. We want to do our best to ensure that a better analogue of modern simulation environments takes its rightful place on the international market.

— **Was it comfortable for you to work? What would you recommend the organizers to pay attention to next time?**

— Our team estimates the organization very highly, everything was done promptly and at a decent level. The dynamic pace of work did not allow us to relax. We got the most useful information, important to promote the product at various stages.

— What do you consider to be the main barrier to success?

 — Probably time. It is necessary to finalize the product, to engage in localization into Chinese, and to create a model converter from the popular MatLab Simulink environment into our environment. Of course, attracting additional investment in the project will help reduce the time needed to finalize it. These questions can be solved, thanks to attraction of financing at the expense of means inside the country, grants and investment programs in the People's Republic of China, about which we have learned from the Chinese experts.

 — How do you see your project developing in the future?

— We are optimistic and believe that our team will succeed in matters of software development and promotion. We have gained valuable knowledge about the opportunities to enter the Chinese market, and we have already started to apply them in practice. In addition, we hope that in the future we will be able to occupy our niche in other countries as well.

<div align="right">Prepared by the SPbPU International Office</div>

Дата публикации: 2023.02.03