

УДК 721.01:004

Dmytro Ivanenko

PhD student NU «Zaporizhzhia Polytechnic»

THE IMPORTANCE OF LEARNING AUTODESK REVIT IN HIGHER EDUCATION INSTITUTIONS

The relevance of learning Autodesk Revit in university settings is increasingly significant due to the demand for proficiency in digital design tools in the architecture, engineering, and construction industries. Autodesk Revit is a powerful software for building information modeling (BIM) that allows professionals to design, visualize, simulate, and collaborate more effectively. As the industry continues to evolve towards more sustainable and efficient building practices, expertise in Revit becomes essential. Universities that incorporate this tool into their curricula are preparing students not only to meet current professional standards but also to excel in their future careers by being adept at using state-of-the-art technology.

The main advantages of using Autodesk Revit in design are:

- enhanced collaboration across disciplines;
- real-time design updates and project management;
- high-quality construction documentation;
- energy modeling for sustainable design;
- 3D visualization and virtual reality integration;
- Parametric modeling components.

The use of Revit in the future is not only relevant but is expected to significantly enhance the efficiency of design processes. Revit's capabilities in building information modeling (BIM) enable more integrated and accurate planning, reducing the likelihood of costly errors during construction. However, there are current nuances to consider, particularly in the interaction between design organizations and their clients. Clients often aim to minimize project costs, which can lead to pressures on designers to reduce expenses, sometimes at the expense of optimal design practices.

Additionally, while Revit facilitates improved collaboration through shared models and real-time updates, this requires all parties involved to be proficient with the software. The transition to fully integrating Revit into workflows can be challenging for firms that are accustomed to traditional CAD tools. Training and adapting to new technologies often require time and investment, which can be a hurdle for some organizations.

The integration of Autodesk Revit into construction organizations not only streamlines design processes but also significantly enhances collaboration and project efficiency. However, for its full potential to be realized, government support is crucial. This support should not only involve updating the regulatory framework to accommodate and even encourage the use of advanced digital tools like Revit but also extend to fostering educational initiatives.

However, for its full potential to be realized, government support is crucial. This support should not only involve updating the regulatory framework to accommodate and even encourage the use of advanced digital tools like Revit but also extend to fostering educational initiatives.

To cultivate a workforce proficient in these technologies, it is essential to embed Revit training into the curricula of construction-related educational programs at the higher education level. This means universities and technical schools should incorporate courses that focus on Building Information Modeling (BIM) principles, Revit software skills, and the application of these in real-world construction scenarios.

Moreover, the government can play a pivotal role in accelerating this integration by providing subsidies or funding for training programs and by facilitating partnerships between educational institutions and industry leaders. Such initiatives would not only enhance the skill sets of future construction professionals

but also ensure that the industry can meet evolving demands efficiently and innovatively.

REFERENCES

1. Joseph, Sam. (2020). Application of Building Information Modeling for an Institutional Building. *International Journal of Engineering Research and*. V9. 10.17577/IJERTV9IS070107.
2. Ferrandiz, Jose & Banawi, Abdulaziz & Peña, Enric. (2018). Evaluating the benefits of introducing “BIM” based on Revit in construction courses, without changing the course schedule. *Universal Access in the Information Society*. 17. 10.1007/s10209-017-0558-4.