characteristics. This integration allows for better planning, coordination, and communication throughout the construction process [5].

Future Prospects: The use of robotics in construction is expected to continue growing, with the construction robots market projected to expand significantly in the coming years [4]. As technology advances, robots are likely to play an even more significant role in various construction tasks, leading to increased efficiency and innovation.

In conclusion, while robotics is transforming the construction industry, human workers will still play a crucial role. Robotics is meant to augment human capabilities, improve safety, and enhance efficiency rather than replace human labor.

REFERENCES

1.Blackman D. Modern construction: Bring on the robots // Building. 2016. URL: https://www.building.co.uk/features/modern-construction-bring-on-the-robots/5079918.article

2.Verma P. These robots might build your house // The Washington Post. 2023. URL: https://www.washingtonpost.com/technology/2023/01/30/construction-companies-robotic-technology/

3.Devitt M. How Robots Are Revolutionizing The Construction of Houses and Buildings // RobotShop Community. 2019. URL: https://community.robotshop.com/blog/show/how-robots-are-revolutionizing-the-construction-of-houses-and-buildings

4.ConstructionPlacements Official. (2023). Rise of the Machines: Robotics in Modern Construction. ConstructionPlacements Official, URL: https://www.linkedin.com/pulse/rise-machines-robotics-modern-construction/

5.Scantar -. Integration of Robotics & AI in Architecture for Future Homes // Robotics Tommorow. 2019. URL: https://www.roboticstomorrow.com/article/2019/10/integration-of-robotics-ai-in-architecture-for-future-homes/14375

D. Nazarenko (PSACEA, Dnipro)
Scientific supervisor: O.Shybko, Cand. Sc.(Tech), Assoc. Prof.
Language consultant: K. Shabanova, English lecturer

APPLICATION OF INFORMATION TECHNOLOGY IN CONSTRUCTION

Information technology (IT) has become increasingly important in the construction industry, offering various tools and applications to improve work processes and outcomes. Here are some key points about the application of information technology in construction:

Building Information Modeling (BIM): BIM is a digital representation of a building or infrastructure project that allows for collaboration, coordination, and visual

ization throughout the project lifecycle. It provides a centralized platform for architects, engineers, contractors, and other stakeholders to share and manage project information [1].

Construction IT Applications: There are various IT applications available to support different aspects of a construction project. These applications have been designed to address specific problems and automate tasks. Some examples include software for project management, cost estimation, scheduling, design, and documentation [2].

Challenges and Benefits: The adoption of IT in the construction industry comes with challenges such as inadequate training, ineffective use of IT infrastructure, and staff perceptions. However, when implemented effectively, IT can improve efficiency, reduce risk, and increase productivity in construction projects [3].

Automation and Off-Site Manufacturing: Information and Communications Technology and Automation (ICTA) has the potential to automate construction processes and improve efficiency. This

includes the use of off-site manufacturing and prefabrication techniques, which can streamline construction operations [4].

Digital Transformation: Information technology is playing a crucial role in the digital transformation of the construction industry. Technologies such as building information modeling, data-centered construction, and enterprise resource planning are being used to enhance project management, collaboration, and decision-making [5].

It is important to note that the application of information technology in construction is a rapidly evolving field, with ongoing research and development. The use of IT in construction projects can vary depending on the specific needs and requirements of each project.

REFERENCES

1.Fischer M. The Scope and Role of Information Technology in Construction // Doboku Gakkai Ronbunshu. 2004. № 63. C.1-31 URL: https://www.researchgate.net/publication/272535082_The_Scope_and_Role_of_Information_Technology_in_Construction

2.Al-Qazzaz I. Information Technology in Construction // Development of an Integrated Construction Management System for Building Estimation. 2010. C.14-43 URL: https://www.researchgate.net/publication/319744918_Information_Technology_in_Construction

3.H. Gaith F., A. Rashid K. Application and efficacy of information technology in construction industry // Scientific Research and Essays. 2012. № 7. C.3223-3242 URL: https://www.researchgate.net/publication/233747681_Application_and_efficacy_of_information_technology_in_construction_industry

4.J. Skibniewski M. Information technology applications in construction safety assurance // Journal of Civil Engineering and Management. 2014. № 20. C.778-794 URL: https://www.researchgate.net/publication/273295929_Information_technology_applications_in_construction_safety_assurance

5.TDX. Information Technologies application for construction // Life cycle document management system for construction. 2022. URL: https://www.tdx.cat/bitstream/handle/10803/6160/03Nfm03de12.pdf?sequence=3

M. Pankov (PSACEA, Dnipro)
Scientific supervisor: O. Zinkevych, Cand. Sc.(Tech), Assoc. Prof.
Language consultant: K. Shabanova, English lecturer

THE INTEGRATION OF SUSTAINABLE CONSTRUCTION PRACTICES IN OUR WORLD

The integration of sustainable construction practices, such as green building materials, energy-efficient technologies, and waste reduction strategies, is crucial for the future of the construction industry in order to mitigate environmental impacts, enhance resource efficiency, and promote long-term sustainability.

The construction industry plays a significant role in shaping our built environment, but it also has a considerable impact on the environment. As the demand for infrastructure and buildings continues to rise, it is imperative to adopt sustainable construction practices that minimize the industry's ecological footprint. This involves integrating green building materials, such as recycled materials and environmentally friendly alternatives, into construction projects.