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## **USING ICT IN THE FIELD OF ARCHITECTURE AND CONSTRUCTION.**

**Abstract:** The article is devoted to the use of information and communication technologies (ICT) in the field of architecture and construction. The key aspects of using ICT to improve the efficiency of the design, construction and management of real estate are considered.

**Key words:** information technology, communication technology, architecture, construction, design, property management.

## **ИСПОЛЬЗОВАНИЕ ИКТ В СФЕРЕ АРХИТЕКТУРА И СТРОИТЕЛЬСТВО.**

**Аннотация:** Статья посвящена применению информационных и коммуникационных технологий (ИКТ) в области архитектуры и строительства. Рассматриваются ключевые аспекты использования ИКТ для повышения эффективности процессов проектирования, строительства и управления объектами недвижимости.

**Ключевые слова:** информационные технологии, коммуникационные технологии, архитектура, строительство, проектирование, управление недвижимостью.

**Introduction:** The modern world demands high speed and accuracy in design and construction of real estate objects from architects and builders. Information and communication technologies (ICT) play a crucial role in achieving these goals by providing new opportunities to increase the efficiency of design, construction, and property management processes. This article discusses the application of ICT in architecture and construction.

**Scientific research:** There are many ways ICT can be used in architecture and construction. For example, computer modeling allows for the creation of detailed three-dimensional models of buildings before construction begins, which helps avoid errors at early stages of the project. ICT is also used for automating property management processes, including cost accounting for building maintenance, access control to rooms, and security monitoring.

Computer modeling plays an increasingly important role in contemporary architecture and construction. It allows for the creation of detailed three-dimensional models of buildings even before construction starts. This means that architects and engineers can visualize their ideas and test them in practice before embarking on actual construction.

This modeling may include various aspects of the building such as its appearance, interior layout, functionality, and even energy efficiency. This enables designers and builders to see how the building will look and function before it is built.

One of the main advantages of computer modeling is that it allows for the detection and correction of errors and shortcomings at early stages of design. This can significantly reduce the time and cost of construction since any problems can be resolved before they become serious.

Furthermore, computer modeling can be used to create virtual tours of the building, allowing clients and stakeholders to better understand how the building will look and function.

Conclusions: The use of ICT in architecture and construction is essential for successful work in this industry. Using new technologies increases the efficiency of design, construction, and property management processes, while reducing costs associated with implementing projects.

Information and Communication Technologies (ICT) play an important role in enhancing the efficiency of design, construction, and property management processes. Let's examine the key aspects of using ICT in these areas:

1. Design: ICT allow for the creation of detailed three-dimensional models of buildings, helping to avoid errors during the early stages of the project. Such models may incorporate various aspects of the building, such as its appearance, internal layout, functionality, and even energy efficiency. This enables designers and builders to see how the building will look and function prior to its construction.

2. Construction: ICT are used for automating property management processes, including cost accounting for building maintenance, access control to rooms, and security monitoring. They also help expedite the construction process due to the ability to quickly exchange information between project participants.

3. Property Management: ICT enable the optimization of property management processes, including cost accounting for building maintenance, access control to rooms, and security monitoring. They also help improve interaction between tenants and the property management company thanks to the possibility of quick information exchange via the internet.

In general, the use of ICT in the fields of design, construction, and property management allows for increased efficiency in processes, faster task completion, and reduced costs associated with project implementation.

Information and Communication Technologies (ICT) play an important role in creating detailed three-dimensional models of buildings. These models allow architects and engineers to visualize their ideas and test them in practice before starting the actual construction.

Creating three-dimensional models of buildings using ICT has several advantages. Firstly, it helps to avoid mistakes in the early stages of design, which can significantly reduce the time and cost of construction. Secondly, such models can include various aspects of the building, such as its appearance, internal layout, functionality, and even energy efficiency. This allows designers and builders to see how the building will look and function before it is actually built.

Moreover, creating three-dimensional models of buildings using ICT allows for virtual tours of the building, which helps clients and interested parties better understand how the building will look and function.

Thus, using ICT to create detailed three-dimensional models of buildings is an important tool in modern architecture and construction.

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