

**PRINCIPLES OF THE USE OF MODERN TECHNOLOGIES IN THE
CONSTRUCTION OF CONDITIONS OF UZBEKISTAN**

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Annotation: this article focuses on the research work carried out on the use of modern technologies in the construction industry based on local conditions and their practical significance.

Keywords: construction industry, modern technologies, local opportunities, frustration.

As we work in the field of construction, we understand that it is preferable to prevent, to eliminate the negative consequences on human health, the environment, from the activities we carry out. I believe that today we should study this concept more broadly, in depth, and it is from the early days of talbativeness that we should instill in student youth. Currently, large-scale work is being carried out in the field of construction materials industry together with relevant ministries and departments on the achievements of Science and the wide introduction of innovative technologies, increasing the type, quality, volume of products, the use of modern, effective and cost-effective technologies in their production. Today, unique buildings and structures with a high level of responsibility are under construction after testing and experimental studies of stationary models. The test methods, the scale of the models and their number are determined depending on the research tasks. The assessment of the state of stress deformation of reinforced concrete shells and the state of large-range closures under the influence of symmetrical, one-sided and complex static loading at the assembly stage of pre-stressed natural structures was carried out on the basis of the recommendations presented in the works. In the process of studying the work of natural constructions, it is important to note that the identification of the peculiarities of the new construction under this study in the conditions of various combinations under the influence of mounting static loads is an area that has not yet been studied in depth.

Construction technology is one of the types of technology that has a special use in the construction industry. Construction projects that use automated construction equipment can include artificial intelligence, BIM software, 3-D printing facilities, and LiDAR technology. These are all technologies created to provide the construction industry with improved working conditions, increased efficiency, health and safety, and many other benefits. As the environment around us changes rapidly, it is not surprising that the need for the world's construction process and the demand for technological progress increase. This is because construction generates routine tasks such as allowing the industry to adapt quickly and helping the construction industry to operate smoothly, i.e. designing, developing and building skyscrapers. While many construction companies invest in technology, the most focus is on digitization and supply chain control, allowing them to adapt to the changing work environment as businesses. In this regard, we can combine the following innovative forms of construction technology due to the need to strengthen adaptation to the environment, introduce innovative technologies and change

the industry. The following construction technologies can be cited that have had a positive impact on the construction industry in the early years:

LiDAR technology is a technology that helps measure distances by illuminating a target with a laser beam and measuring reflection using a sensor that can be mounted on other construction techniques across the field. Intelligent infrastructure Hexagon Geosystems has created a constructive monitoring system that uses sensors to track the strengths and weaknesses of a particular structure that would otherwise not be visible to the human eye. This technology can also be used to assess the structural integrity of an object in natural conditions such as rocks and mines, thus reducing the risk of workers and informing the construction team of any dangerous situations.

Virtual reality and augmented reality - Virtual reality (VR) refers to the creation of an entirely simulated environment and includes a relatively long history in the construction industry. However, augmented reality (AR) involves superimposing computer-generated images and real-world image data together. Virtual reality serves as an important part of construction technology for the industry in various ways. VR includes training, security, structure studies, plan review, and similar aspects. Virtual reality can also help to seamlessly manage simulations that can be too dangerous to replicate workers in the industry, i.e. a natural disaster or a large equipment malfunction. While augmented reality can provide construction site workers with virtual feedback - mmulohases about real-world progress, it ensures everyone is involved in the process and reduces errors. Augmented and virtual reality is an industry-approved construction technology with many advantages. For example, a plot contractor can hold a tablet inside the house and see the location of each of the required drill holes without checking the physical construction plan. Artificial intelligence-artificial intelligence (AI) has become one of the main technological processes in many fields, including construction. Artificial intelligence offers the construction industry the ability to speed up planning and make whole operations faster and more efficient. Thus, a greater need for the application of artificial intelligence technology to the construction industry began to appear.

BIM software-building data modeling enables the integration of several technologies to create a smart option for management and workflow planning tools. For example, construction managers can create smart 3D models of their projects and at the same time create smart workflows based on it. 3D printing-3D printing technology has been developing rapidly over the years, so many companies in the construction industry have figured out how to print a house faster and cheaper than the traditional method using this specific software and technology. In the first 3D, manufactured homes sold for \$ 10,000 (about less than £ 7,509) in the United States. A further 50 3D printing houses are currently being developed in Mexico, contributing to changes in the Home Building Industry.[4] Exoskeletons are another wearable technology that works together (among) the user, allowing industry workers to do more work than a person can. The purpose of this technology is to minimize the impact strength and damage on the body of workers, while helping to increase productivity, since workers feel less tired when using this technology. This process is carried out using the following jichoses: power gloves-grip tools and materials, hand and shoulder support, standing and squatting - a task that requires a long stay, that is, drilling, a whole body suit - allows you to lift and transport heavy tools and objects.

Humanoid workers are automatic machines that assist humans or the workforce as well as a group of robots that can be exemplified. For example: Doxel AI - high-tech cameras, LiDAR and

drones and automatic devices can be included. The development of humanoid workers can also be attributed to the pros and cons. While the creation and development of humanoid workers increases the productivity of work in the fields, on the second hand it is in reducing the need for human labor. Robot gangs - unlike humanoid robots that look like humans, robot gangs are hundreds of small individual robots that work in sequence with each other to perform simple-like brick laying. The possibilities of this robot gang technology are endless, since they can be programmed not only for laying bricks, they can safely repair infrastructure that is considered dangerous for workers in flooded or difficult to boorish areas.

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