APPLICATION OF BIOM TECHNOLOGIES IN HIGHER EDUCATION ORGANIZATIONS

Otamuratov Obidjon Toirjonovich
Associate Professor of Information Technology at SamDAQI

Annotation. This article discusses the criteria for preparing textbooks in higher education organizations in the field of technology using BIM technologies and the relevance of monitoring the quality of construction management, and the development of BIM technologies in new construction engineers. The introduction of BIM technologies for improving the staff training system in the fields of architecture and construction engineering is a very important factor for further development of the educational process in the strategic development of construction.

Keywords*:* BIM technology, methodology, model, teaching, information technology.

Annotation. This article will focus on the criteria for training personnel in organizations of higher education of a technical profile using BIM-technologies, as well as on quality control of management of the construction industry, the relevance of the introduction of BIM-technologies in new civil engineers. The introduction of BIM-technologies to improve the system of training personnel in the field of architecture and urban planning is a very important factor in the further development of the educational process within the framework of the strategic development of construction.

Keywords: Bim-technology, methodology, model, training, information technology.

Annotation. This article will focus on the criteria for training personnel in technical higher education organizations using BIM technologies, as well as on quality control of the construction industry management, the relevance of the introduction of BIM technologies in new civil engineers. The introduction of BIM technologies to improve the training system in the field of architecture and urban planning is a very important factor in the further development of the educational process within the framework of the strategic development of construction.

Keywords: Bim technology, methodology, model, training, information technology.

Today, technology has many problems teaching "Information Technology in Construction" in higher education organizations. Professor teachers are working to improve the effectiveness of education using the development of 21st century technology. Proffessor teachers will have to develop technologies and learning tools based on fan programs. Currently, changes in digital technology provide a wide range of beneficial effects on the process of studying science. One of the most important influences of digital era development that can be applied in science education is the virtual laboratory.

A virtual laboratory is a tool that saves on direct experimental visualization, interactive virtual environments, case experiments, more efficient experiments and the acquisition of experimental tools. Learning using a virtual laboratoria can be done anywhere and any time without even taking classes from your audience.

Subjects related to virtual laboratory activities are knowledge of natural phenomena, including research and discoveries through practical and experimental work under the guidance of teachers [1].

In recent years, there has been a legislative obligation around the world to independently design buildings and structures for state bodies and public corporations, as well as to purchase relevant work and services for the creation of building facilities only on the basis of BIM technologies. By the end of 2022, all government agencies will carry out the construction of buildings and structures using digital modeling technologies. Thus, the transition of construction companies to WIM technologies is inevitable and it is very necessary for future construction engineers to acquire skills and skills in this area.

BIM (Building Information Modeling) - information modeling in construction . Ushbu technology is based on the collection and processing of complete information about the object being built - architectural, technological, economic, environmental, operational and other characteristics. Based on this information, a 3D model of the future building will be created [2].

BIM is an information platform where you can install additional technologies and facilities by resorting to a specific structure. The purpose of the proposed methodology based on BIM technology is to combine an approach to the process of automation of investment and construction projects and to identify a single structural approach in the process of using three-dimensional modeling technology. It is planned for the creation and training and practical application of the integrated 3D model.

A number of initiatives are being undertaken throughout the country to inform the teaching process, to create electronic textbooks and textbooks. For example, in N.I.Taylaqov's research work on "The Pedagogical Fundamentals of Creating a New Generation of Educational Literature for a Free Education System," opinions were given on the creation of a new generation of textbooks[3]. Information modeling technologies allow you to evaluate the efficiency of operation at the longest and most important stage. Today, BIM helps greatly in the design, construction and use of objects for OTMs for the construction industry.

The widespread introduction of BIM technologies means the importance of training specialists in the use of modern information and communication technologies. At this stage, the priority of construction universities is to implement curricula for the training and professional development of specialists in BIM technologies.

U.S.A., U.S.A., worked to manage higher education using electronic resources, to inform educational processes, and to create a single information education environment in the teaching process [4]. To prepare new types of specialists with BIM technologies for team work, the Conceive-Design-Implement-Operate International Project "World Initiative" has been created, the main principle of which is the training of engineers. In-depth understanding, design, implementation and management of complex engineering projects in working as a team.

Preparing those studying in the field of bachelor's degree education for collective work is a necessary prerequisite for effective work on general information models, and the implementation of the work is based on the implementation of the main stages and may be irrespective of the location of each [5].

This method allows students to obtain design skills in constructive calculations, energy efficiency assessment, identification of technical and economic indicators, using information modeling technology that includes information used in cost specifications.

Teaching without the use of modern computer technologies is complex because there are no layouts for each specific task, so there are no illustrations that allow you to review and evaluate my yech from all angles.

Drawing the solution to the problem on the board is not visual, but in limited time and without adequate preparation, student reproduction using paper drawing tools is sometimes fatal. A modern student who chooses a specialty as a construction engineer or architect sometimes does not understand the specifics of these professions.

Thanks to technological advances and an increase in building data modelling (BIM) technology, new opportunities are emerging to improve learning processes. Due to the interaction of complexity between traditional training programs and bim software packages, many advantages of BIM technology do not require.

The use of information stored in the information model, combining them with the data of realized projects, the use of modern software reduces time and improves the quality of education in training for the construction industry.

Available literature

1. 1.J.Copriady, “Teachers competency in the teaching and learning of chemistry practical,” Mediterranean Journal of Social Sciences, vol 5, pp.312-318, 2014.
2. 2.Methodology for assessing safety achievement factors at a construction site based on information modeling Sharmanov V.V. Academic bulletin UralNIIproekt RAACS. 2017. № 3 (34). Pp. 72-79.
3. Taylaқov N.I. Uzluksiz taъlim tyzymi uchun ўқв adabiyotlarin youngs avlodina yaratishing ilmiy pedagogy asoslara (Informatika mysolid courses): ped.fan.doctors dis. - Tashkent, TSPU, 2007. – 359 p.
4. 4.Бегимкулов У. Ш. Олий педагогик таълим тизимига замонавий ахборот ва коммуникация технологияларини жорий этишнинг илмий-педагогик асослари. Пед. фан. доктори дис. – Тошкент: ТДПУ, 2007. – 250 б.

5. BIM in the assessment of labor protection Sharmanov V.V., Simankina T.L., MamaevA.E. Engineering and Construction Journal. 2017. No. 1 (69). Pp. 77-88.