ISSN 3060-4567

ACHIEVEMENTS AND DISADVANTAGES OF THE ORGANIZATION OF DISTANCE LEARNING OF THE DISCIPLINE "ENGINEERING COMMUNICATIONS" INTENDED FOR THE FIELD OF ARCHITECTURE AND CONSTRUCTION EDUCATION

Abilov Elyor Ermamatovich, PhD, Associate Professor. Republic of Uzbekistan. Termez city. Termez State University of Engineering and Agrotechnology Email address: <u>elyor.abilov.90@mail.ru</u> Tel: +99899-674-05-93.

Turapov Farxod Xursanovich, Senior Lecturer. Republic of Uzbekistan. Termez city. Termez State University of Engineering and Agrotechnology

> Email address: <u>farkhodturapov@mail.ru</u> Tel: +99891-229-75-75

Eshpoʻlatov Mahmudbek Alisher oʻgʻli, student Republic of Uzbekistan. Termez city. Termez State University of Engineering and Agrotechnology

Email address: eshpolatovmahmud5@gmail.com

Tel: +99894-273-76-05

Abstract: This article presents the importance of the discipline "Engineering Communications" for the field of architecture and construction, the purpose of teaching the discipline. The advantages and disadvantages of distance learning of the discipline are described. In conclusion, practical recommendations are given to eliminate some of the disadvantages of distance learning of the discipline "Engineering Communications".

Keywords. Architecture and construction, engineering communications, *distance learning, motivation, internet.*

Introduction. It is impossible to imagine industrial and civil buildings without engineering communications. The design and construction of any building

requires knowledge and skills in engineering communications from construction specialists. As a result of the rapid growth of the construction industry in recent years, the demand for personnel in this industry is also increasing. Adaptation to the distance education system in the training of specialists in architecture and construction is also a requirement of the time.

The main part. An integral part of the field of architecture and construction is engineering communications, and the introduction of this discipline into the distance education system should have a certain direction. The discipline of engineering communications is considered one of the main general professional disciplines. The use of innovative teaching methods, the introduction of new pedagogical, information and Internet technologies are of great importance in the mastering of the discipline of engineering communications by students. The purpose of teaching the discipline is to explain to students the essence of the issues of designing and correctly placing engineering communication systems and equipment of a building, to develop basic skills in providing areas with engineering systems and designing them [4, p. 1]. Distance education of the discipline of engineering communications also has its advantages and disadvantages.

As modern information and communications technologies develop, unconventional teaching methods are becoming more and more advanced. In particular, the distance learning system is reaching its peak. In 1913, Thomas Edison proposed that books be abandoned in schools and replaced with films, and the school education system has been transformed over the past 10 years thanks to his discoveries. [1, p. 146]. Although people have not given up learning from books, as Thomas Edison predicted, they have begun to teach lessons remotely using information communications .

The use of modern Internet sites and special computing programs by students in mastering the subject of "Engineering Communications" not only broadens their worldview in the subject, but also forms their ability to perform complex tasks. Distance learning of the subject of "Engineering Communications" has the following advantages:

Achievements:

- Studying can be done at any time and place;

- Unlimited access to all learning materials;

- The relative isolation of education and the possibility of obtaining it in peaceful conditions;

- The ability to study the principles of operation, placement conditions, and modern assortment of engineering communications systems and equipment via video recording directly from the provided link;

- The possibility of reviewing missed or poorly mastered lessons;

- The ability to use modern computers and the Internet increases literacy; Disadvantages:

Dependence on the level of development of the Internet network;

- Requires good access to information and communication technologies and computer equipment;

- The problem of confirming the identity of students when completing assignments

[2, p. 1200].

Limited communication between students and teachers [3, p. 32].

To ensure that the student personally completes the assigned tasks in the subject, it is necessary to exert more motivational influence on him. Motivation is the most important part of any distance learning [5, p. 37]. For example, a student can be given the task of determining how the drinking water he consumes every day gets to his kitchen. As the volume of independent work assigned to students in distance learning increases, it is necessary to organize increased support in the learning process by the teacher [6, p. 6].

Results. The student's ability to understand the principles of operation of the water supply, sewage system, ventilation network, heating system, and air conditioning systems of the building in which he lives will increase his confidence in the knowledge acquired in the subject "Engineering Communications", which will motivate him to work independently on his own to redesign them to ensure their more

effective operation. Due to motivation, the student is interested in personally completing the assigned tasks and knowing the results. At the same time, students can be given more independent work.

Final recommendations. To prevent limited communication between students and teachers, after each lesson, the teacher can post the topic on a discussion forum and participate in it with students. For example, within the framework of the topic "Air Conditioning Systems", independent work can be assigned on the topics "Principles of Operation of Refrigeration Devices", "Artel Refrigeration Devices and Their Characteristics", "Companies Manufacturing the Most Efficient Air Conditioning Devices in the World", "Solar Refrigeration Devices and Their Structure" and finally exchange ideas with students in the discussion forum.

LIST OF REFERENCES.

1. N. N. Dzhemilyeva. " Establishment of distance education in the USA and Canada". Bulletin of Vyatka State University. #2. 2010 g.

2. M. S. Chvanova, I.A. Kiseleva. "Problems of distance education and the Internet". Vestnik TGU, vol. 22, vyp. 5, 2017.

3. O. N. Apanasenko, E. B. Malyukova. "Organizational and legal problems of quality and efficiency of distance education in Russia and abroad". Education and science in modern conditions. No. 1 (2). 2015 g.

4. U. X. Tursunova. Engineering communications. Science program. TAKI. 2018. D. A. Kozlova. " Distance learning as an innovative approach to the 5. implementation of continuous education". Bulletin of TSPI. Special issue No. 1. 2013. A. A. Skvortsov . "Evolution and introduction of distance educational 6. technological and educational process of students in a scientific educational environment". Vestnik TGU, issue 1 (141), 2015.

7. Жураев, С., & Беккамов, М. (2022). КЛАССИФИКАЦИЯ ВИСЯЧИХ МЕТАЛЛИЧЕСКИХ КОНСТРУКЦИЙ (ТРОСОВЫХ И МЕМБРАННЫХ) ПОКРЫТИЙ. O'ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 2(14), 997-1002.

Жураев, С., & Сатторов, К. (2023). Расчет Тросовых Висячих Покрытий В Пк Лира. Periodica Journal of Modern Philosophy, Social Sciences and Humanities, 16, 119-123.

9. Жўраев, С. (2023). АЛИШЕР НАВОИЙ ДАВРИ ИМОРАТЛАРИНИНГ АРХИТЕКТУРАСИ. O'ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 2(16), 142-146.

10. Turayev, S., & Sanjar, J. (2023). ZILZILA VAQTIDA BINO VA ZAMIN GRUNTLARINING O'ZARO TA'SIRI. Finland International Scientific Journal of Education, Social Science & Humanities, 11(2), 410-414.

11. Sanjar, J. (2023). DEVELOPMENT OF CULTURE AND ENTERTAINMENT PARKS. American Journal of Pedagogical and Educational Research, 9, 49-52.

12. Жураев, С., & Тураев, Ш. (2023). ДВУХПОЯСНЫЕ ПРЕДВАРИТЕЛЬНО НАПРЯЖЕННЫЕ СИСТЕМЫ. IJODKOR O'QITUVCHI, 3(29), 77-81.

13. Жураев, С., & Сатторов, К. (2023). ТЕРМИНОЛОГИЯ И КЛАССИФИКАЦИЯ ВИСЯЧИХ И ВАНТОВЫХ МОСТОВ. Innovations in Technology and Science Education, 2(9), 197-206.

14. Хурсандов, Э. Ў. (2024). ЭГИЛУВЧИ ЭЛЕМЕНТЛАРНИ ҲИСОБЛАШ
ВА УЛАРНИНГ АФЗАЛЛИКАРИ. ОБРАЗОВАНИЕ НАУКА И
ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 47(5), 73-76.

15. Mamatmurod ogli J. S. et al. QURILISH BOSH PLANI, MATERIAL VA KONSTRUKSIYALARNI OMBORLARGA JOYLASHTIRISH //ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ. – 2024. – T. 47. – №. 5. – С. 66-72.

ASOS, **PODEVORLAR** VA 16. Mamatmurod ogli J. S. et al. ORAYOPMALARNI **KUCHAYTIRISH** VA **ULARNING** MONTAJ OSHIRISH //ОБРАЗОВАНИЕ И SAMARADORLIGINI НАУКА ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ. – 2024. – Т. 47. – №. 5. – С. 54-59.

17. Abdurahmon og T. S. et al. EGILUVCHAN-QATTIQ VANTLAR BILANMUSTAHKAMLANGANKATTAORALIQLISILINDRSIMON

MEMBRANALARNI HISOBLASH //JOURNAL OF INNOVATIONS IN SCIENTIFIC AND EDUCATIONAL RESEARCH. – $2024. - T. 7. - N_{\odot}. 3. - C. 135-139.$