# TO INCREASE THE EFFECTIVENESS OF TRAINING IN THE TRAINING OF SPECIALISTS OF ALTERNATIVE ENERGY SOURCES (SOLAR AND WIND ENERGY)ON THE BASIS OF INNOVATIVE TECHNOLOGIES OF EDUCATION

Yuldashev Farrukhjon Murod ogli, Assistant of the Department of Electronics of Jizzakh Polytechnic Institute fyuldashev.1992@gmail.com

Yuldashev Javohir Murod ogli Jizzakh Polytechnic Institute Student of Electrical Engineering, Electrical Mechanics and Electrical Technology

#### ANNOTATION

In this article, the innovative forms of training (training, round table, interactive lecture, interactive lecture, videoconference, virtual lecture, virtual lecture, etc.) are developed to improve the effectiveness of training specialists of alternative energy sources (solar and wind energy) on the basis of innovative technologies of Education.) such issues will find their own solution.

**Keywords:** training, round table, interactive lecture, interactive session, videoconference, virtual lecture, virtual session, energy, alternative, energy, power, power, socio - humanitarian knowledge.

### INTRODUCTION

One of the standards that determines the economic stability and development of any country is its level of guaranteed supply of energy. The peculiarity of the new era is that the increase in the demand for energy in the world by the year proportionally leads to a decrease in natural resources and a decrease in the number of harmful gases and it leads to a large amount of output of waste. It can be seen that energy, in particular, the reserve of Natural Resources, acquires a global characteristic problem [1]. The rapid development of Science and technology and industry around the world is leading to a further increase in the need for Natural Resources.

One of the global challenges facing humanity today is the issue of environmental and energy scarcity. The most effective way to rid mankind of this conjoined problem is to use alternative energy sources that are now being represented as a Salvation ship to the wide road it is to put. It is known that the energy used is obtained mainly from the account of organic, that is, hydrocarbon fuels; rock-coal, oil, natural gas, etc. But the reserves of these on earth are limited, and their resources can be exhausted in the future [2]. And this in turn leads to the energy system the introduction of change, that is, requires the introduction of new alternative energy resources into the system. Therefore, in order to avoid energy scarcity in the World, measures are being taken to exploit other types of energy resources and research work is being carried out. Included renewable energy sources; solar, wind, hydro, issues of utilization of energy from underground hot water, various gases(biogas, methane and bass.) great attention is paid by

scientists of the world to the production and the discovery of other types of fuel [4]. The acceleration of scientific and technical development in our country has become one of the important issues in terms of the current market economy. In solving these issues, the role of power engineering is huge, as the demand for energy in industry, transport, agriculture and other spheres is increasing year by year. Therefore, the use of solar energy in order to save energy resources and improve environmental problems is becoming one of the important sectors of modern technology [6].



President of the Republic of Uzbekistan has signed an order on "alternative energy sources on measures concerning further development"PP-4512 dated 01.03.2013- decree of the president of the Republic of Azerbaijan on establishment of the International Solar Energy Institute The Institute of solar energy was established on the basis of the scientific Production Association "physics-solar" within the framework of the execution of the decision № PP-1929 dated 01.03.2013 [7].

Today, scientific and technical development requires the introduction of innovative technologies not only in the numerous branches of production, in the training of specialists in alternative energy sources, but also in the field of cultural, social and humanitarian knowledge, including education. It is known that in the "national program of Personnel Training" it was repeatedly noted that provision of educational process with advanced pedagogical Technologies " was defined as one of the serious tasks performed at the stages of improving and improving the quality of continuous education [8]. This means that according to innovative educational technologies in higher educational institutions pedagogical-teaching competence must meet the following basic requirements:

- The teacher must be able to teach, educate, be able to control the knowledge of the educators and be able to assess objectively [9];

## GALAXY INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL (GIIRJ) ISSN (E): 2347-6915 Vol. 9, Issue 12, Dec. (2021)

- Must know the use of innovative pedagogical technologies in the organization of the educational process. Educator-teacher must have the following qualities in order to fulfill the responsible and urgent tasks assigned to him, to form new views on the educational process [10]:
- Deep understanding of the essence of modern scientific, cultural and innovative technological progress;
- Deep and broad understanding of the system of knowledge about the world and man;
- The application of other technical means of computer education and training to the educational process;
- Must have an understanding of the internet and be able to conduct a thorough analysis of the content of the information technology in it.

Emerging in the development of modern education "innovative approach", "innovative activity", "innovative pedagogy", The concept of innovative education "is based on the needs, the purpose of which is to introduce changes, updates that guarantee the result of the educational process in the field of Education.

Innovative forms of teaching (training, round table, interactive lecture, interactive induction, videoconference, virtual lecture, virtual induction, etc.), techniques (mental attack, cluster, Assistant, decisions genealogy and b.) and tools (interactive whiteboard, presentation, Electronic textbook, graphic organizers, virtual simulators, etc.) formed [11].

21stgreatest challenges of the century the sustainable generation and Providing reliable supply of clean. use energy. affordable energy for all raises complex and significant technical, social, political, economic, legal and ethical issues all be addressed, that must combination, often to ensure sustainable growth and development. Universities have a critical role to play as key energy stakeholders. After all, universities build through the of knowledge. capacity development new therefore effective new understanding and new insights, and can provide [13-17].They also enable a regular solutions to complex problems supply highly educated, skilled people who develop and implement energy and other social challenges. Universities are uniquely positioned to make a significant contribution because they can combine expertise from different research and education disciplines and consequently provide a non-biased environment for exploring and developing new ideas. New cross- disciplinary approaches will be required, so that different energy technologies, systems, economies and markets, new regulatory frame works, consumer behave our insights, and other social and cultural aspects are all combined to holistically solve the existing challenges. This document aims to support the plans and ambitions of universities across Europe, to strengthen existing capacities by providing guidance that will allow them to take new initiatives and develop interdisciplinary cooperation to promote the innovative research and education required to overcome the energy challenge [15].

One of the main factors that affect the content, effectiveness of education is the creation of a management system that is scientifically based, armed with modern management technologies, has the potential to employ these technologies in practice[18]. The president of our country Shavkat Mirziyoev made two main demands to the leaders: the first requirement is that every

responsible leader should radically change his responsibility for his work, increase his personal responsibility, and if his consciousness should exclude from them the idea that "no one touched me, but I had a peaceful day", the second requirement is that the leader should be.

### CONCLUSION

The role of all disciplines in the implementation of innovative peer-to-peer work is important in improving the quality and effectiveness of education and performs a specific competency task in educating the growing younger generation as a comprehensively competent person. This, in turn, will help to use modern pedagogical technologies that will serve to improve the quality and efficiency of the educational process. The acceleration of the system of work carried out to improve the quality and effectiveness of the lessons will also teach an innovative approach.

### LIST OF LITERATURE

- 1.Urinov, S., &Zohid, Q. (2020). Power Losses in Electric Machines. International Journal of Engineering and Information Systems (IJEAIS) ISSN, 87-89.
- 2.Qulboyev, Z. (2021). THE IMPORTANCE OF MECHANICS IN THE STUDY OF THE UNIVERSE AND IN THE DEVELOPMENT OF TECHNOLOGY. Academic research in educational sciences, 2 (9), 366-369.
- 3.Qulboyev, Z. X. (2020). SVERXPROVODYashchIE FULLERY I IX PRIMENENIE V BIOPHYSICS. Enigma, (23), 155-159.
- 4.Qulboyev, Z., Urinov, S., &Abdurahmonov, A. (2021). Ways to increase the effectiveness of the study of solid state physics in technical universities. Science and Education, 2 (10), 380-386.
- 5. Ziyonet.uz
- 6.PRIMENENIE PROGRAM "MULTISIM" LYAKONSTRUIROVANIYA SCHEMATICHESKIX ELEKTRONNIXSXEMD Mustofokulov, ShKarshiboev, F Yuldashev...-" ONLINE-CONFERENCES "PLATFORM, 2021
- 7. For more information: www.ilo.org/green-jobs-programme or contact: Mr Andreas Klemmer, Senior Enterprise Development Specialist Klemmer@ilo.shame
- 8 CleanTechnica (2018), "UK floating wind could support 17,000 jobs & generate £33.6 billion In value by 2050", https://cleantechnica.com/2018/10/30/uk-floating-wind-could-support-17000-jobs-generate-33-6-billion-in-value-by-2050/ (accessed 8 September 2019).
- 9. REDUCE THE LEVEL OF POLLUTION OF THE ENVIRONMENT AND THE ENVIRONMENT WHEN DRESSING ELECTRICITY. Sh.TheA.Eshqobilov., Z.TheX.Yasakov-Samarkand State Institute of architecture and construction.
- 10. HOT WATER SUPPLY OF BUILDINGS AND STRUCTURES WITH THE HELP OF SOLAR COLLARS. Fakhzigulov A. master's degree; Kanaatov I. The L. engineer energetics; Eshmatov m. Location the T. the F. what? University student
- 11. Mustafakulov, D., Karshibayev, Sh., Yuldashev, F., &Khazratkulav, D. (2021, October). PRIMENENIE PROGRAM" MULTISIM LYAKONSTRUIROVANIYA SCHEMATICHESKIX ELEKTRONNIXSXEM. In "ONLINE-CONFERENCES" PLATFORM (pp. 547-550).

- 12. Bagramyan, E. The R. Wait, T. The L., Batanov, A. The A., Berezin, A. The A., Blaginix, E. The A., Blagirev, M. Location, ... &Yuldashev, F. Location (2021). INNOVASIONNOE RAZVITIE NAUKI I OBRAZOVANIYA.
- 13. Yuldashev, F., &Bobur, O. (2020). Types of Electrical Machine Current Converters. International Journal of Engineering and Information Systems (IJEAIS) ISSN, 162-164.
- 14. Yuldashev, F. M. Õ. (2021). EFFECTIVENESS OF TRAINING IN THE TRAINING OF SPECIALISTS OF ALTERNATIVE ENERGY SOURCES (SOLAR AND WIND ENERGY) ON THE BASIS OF INNOVATIVE TECHNOLOGIES OF EDUCATION. Academic research in educational sciences, 2 (11), 86-90.
- 15. Жуманов А., Абдиев X., Файзуллаев А. классификация воздушных линий электропередачи //Современная наука: актуальные вопросы, достижения и инновации.  $-2021.-\mathrm{C}.\ 45\text{-}48.$
- 16. Умаров Б., Абдиев Х. Устройство, размеры и параметры преобразователей тока большой емкости для систем регулирования реактивной мощности //инновационное развитие: потенциал науки и современного образования. 2020. С. 10-13.
- 17. Абдиев X., Умаров Б., Тоштемиров Д. Структура и принципы солнечных коллекторов //наука и современное общество: актуальные вопросы, достижения и инновации. 2021. С. 9-13.
- 18. Abdiyev H. E. O. Iqlim nazorat masofaviy tizimini quyosh kollektorlari asosida takomillashtirish //Academic research in educational sciences. − 2021. − T. 2. − №. 9. − C. 613-618.