

# 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

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### **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.

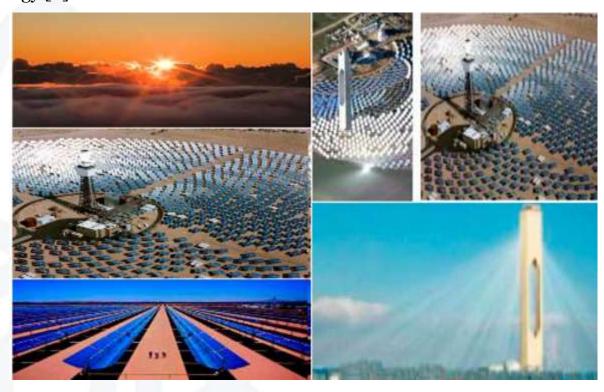
### Introduction

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 Nº 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];
- 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].

One of the greatest challenges of the 21st century lies in the sustainable generation and use of energy. Providing a reliable supply of clean, affordable energy for all raises complex and significant technical, social, political, economic, legal and ethical issues that must all be addressed,



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



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