YADRO ENERGIYASINING XOSSA VA XUSUSIYATLARI

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ANNOTATSION

Nuclear power is the most important sub-sector of the world energy industry, which began to make a significant contribution to the world's electricity production several decades ago. Today, the price of electricity produced by nuclear power plants allows us to talk about serious competition with other types of power plants. A clear advantage of nuclear power plants is the absence of aerosol and greenhouse gas emissions into the atmosphere.

***Key words**: nuclear energy, nuclear power plant, nuclear reactor, fission reaction, energy source.*

Introduction. Nuclear energy is a branch of energy that uses atomic energy (nuclear energy) to produce electrical and thermal energy, and a branch of science and technology that deals with the theoretical development of methods and means for converting nuclear energy into electrical and thermal energy and their practical implementation. A nuclear power plant (NPP) is the technical basis of nuclear energy. The energy source is a nuclear reactor (nuclear reactor). In nuclear fission reactions (see Nuclear reactions), the fission of uranium and plutonium nuclei releases thermal

energy, which is then converted into electrical energy, as in conventional thermoelectric installations. In the event of depletion of fossil fuel reserves (coal, gas, oil, peat), the use of nuclear fuel is currently the most reliable way to provide humanity with energy. Therefore, in most developed countries (USA, UK, France, Canada, Japan, Germany, Sweden, Russia, India, Pakistan, etc.), highly efficient methods of using other energy sources, including, first of all, nuclear energy, are used instead of thermal and hydropower sources, development work is being carried out at a rapid pace. In Uzbekistan, scientific research in the field of nuclear energy is carried out by the Institute of Nuclear Physics of the Academy of Sciences of Uzbekistan.

Relevance of the research topic. In Decree No. PQ-5032 of March 19, 2021 "On measures to improve the quality of education in the field of physics and the development of scientific research," the scope of scientific work aimed at solving problems in the field of physics has been expanded. all areas of medicine, increasing the efficiency and practical significance of scientific research when testing innovative results.

Level of knowledge of the subject. Based on the general goal of education, at one stage of training taking into account the need to resolve educational and developmental issues the selected option is analyzed and evaluated. This is one of the important requirements for the organization of modern education is to achieve high results in a short time, without spending too much mental and physical effort imparting, developing in them skills and competencies in relation to certain activities to do, as wel as monitor the activities of students, undertakes. Assessing the level of knowledge, skills and qualifications is more pedagogical than the teacher requires a new approach to skills and the educational process.

Statement of the research objective: to raise the quality of knowledge in nuclear energy to a high level, to form an understanding of nuclear processes, and also to bridge the gap between the insufficient knowledge of the methodology of nuclear energy education based on innovative information technologies in Nuclear Energy Education.

Purpose of the study: In physics courses, all topics such as "Analytical assessments of the upcoming growth in energy consumption", "Organic fuel energy and prospects for its development", "Renewable energy sources and their resources" were used using innovative computer technologies. .. is to develop an innovative educational methodology that allows achieving effective results that shape the modern vision of nuclear processes.

Main part: Resources of educational innovative technologies are used for modeling and animation of the processes being studied, developing students' thinking skills in a figurative way, demonstrating educational information, conducting laboratory work in computer experiments, and most importantly, creating a real situation by modeling on the monitor creates ample opportunities for gaining interest to learning [5]. In order to improve the methodology of teaching nuclear energy by using such opportunities, it is necessary to ensure that the content of educational subjects corresponds to the achievements of modern science and technology, to ensure the connection between theory and practice, to take into account the environmental organizers of physical education and to perceive the physical essence of each concept, that is, a physical phenomenon, a physical quantity, a model , idea, theory, atomic nucleus, mass defect, binding energy, radioactivity, ionizing rays. and other concepts must correspond to fundamental and scientific laws. The block structure of the content of logically related NPP educational materials can be chosen as follows. Atomic nucleus – nuclear changes – nuclear energy – effects of ionizing rays on living organisms. The theory of the atomic nucleus includes two interrelated parts - the structure of the nucleus and nuclear fission reactions, which gives rise to the need to use nuclear models to express nuclear properties. In this case, the use of the necessary model for understanding a particular process using models representing the special properties of the nucleus, and demonstration of the limits and possibilities of using each model directly using computer programs to expand information about the properties and structure of the nucleus without updating, and to expand universal

information about kernel. They will have information that the model has not been created

Experimental results and discussion. The method is designed to encourage students to come up with new ideas serves to create conditions. Each has 5 or 6 students different groups that need to be solved positively within 15 minutes assignments or creative tasks are given. Objectives and creative tasks defined after it is resolved positively in time, one of the group members will report this. Information provided by the group is the teacher and other group members will be discussed and assessed at the end of the training among solutions to problems or creative problems given by the teacher publishes answers that are considered good and unique. During training assessment of the activities of group members depending on the level of their participation i'll go

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