

References

1. Икаев С. Система бионического зрения Gennaris готова к испытаниям на людях. website. URL: <https://hightech.plus/2020/09/25/sistema-bionicheskogo-zreniya-gotova-k-ispitaniyam-na-lyudyah>. (Last Accessed 25.11.2020).
2. Gennaris Bionic Eye: website. URL: <https://www.monash.edu/mada/research/the-bionic-eye>. (Last Accessed 26.11.2020).
3. Lowery A.J. et al. Monash Vision Group's Gennaris Cortical Implant for Vision Restoration. *Gabel V. (eds) Artificial Vision. Springer, Cham. 2017.* https://doi.org/10.1007/978-3-319-41876-6_17

Language Adviser: *Kulieshov S. O., Teacher of the Department of Foreign Languages, Dmytro Motornyi Tavria State Agrotechnological University*

COMPARATIVE CHARACTERISTICS OF ALTERNATIVE ENERGY SOURCES

Yatsyna D.S., *yatsinadavid37@gmail.com*
Dmytro Motornyi Tavria State Agrotechnological University

In today's world, with growing rates of consumption and as a consequence - the limited energy resources, the rapid development momentum gaining energy production technologies of alternative and renewable sources. Alternative energy sources are already widely used for solving energy problems, not only commercially, but also in the private sector.

The purpose of work is to consider the popular types of alternative energy sources, and to present the most popular ones in Ukraine. As we have known, 64% of the electricity we need comes from burning fossil fuels such as oil, gas and coal. These resources pollute the environment and are not renewable, so once we have burned them all up, there will be no more. This means that the world must find and use alternative sources of energy. This alternative energy needs to use no fuel and create no waste or pollution [1].

Solar power plants are actively used in more than 80 countries; they convert solar energy into electricity. There are different ways of such conversion and, accordingly, different types of solar power plants [2].

Wind power plants (wind farms) are widely used in the USA, China, India, as well as in some Western European countries (for example, in Denmark, where 25% of all electricity is produced in this way). Wind power is a very promising source of alternative energy; at present, many countries are significantly expanding the use of power plants of this type.

A huge amount of thermal energy is stored in the depths of the Earth. In some parts of the world, high-temperature magma directly reaches the Earth's surface: volcanic areas, hot springs of water or steam. Geothermal sources are used in different ways. Some sources are used for heat supply, others - for generating electricity from thermal energy.

We need to note that Ukraine is rapidly increasing the organization of alternative energy. Over the past years, our country has gradually introduced a system of energy production from renewable sources (RES). It is still at the development stage, but it seems to be a worthy way to maintain the economic situation in Ukraine. This is a necessary step due to the lack of traditional energy resources [3]. For the optimal choice of the type of autonomous source power supply, it is necessary to make a comparative analysis of devices, their technical characteristics and operating conditions. As a rule, the following types are compared with each other alternative energy sources recommended for autonomous power supply: solar power plants with photovoltaic cells and systems that convert solar energy into heat and then into electricity; wind farms with vertical and horizontal axes of rotation; solid fuel power plants and power plants on biogas.

In the course of the comparative analysis, various types of autonomous power plants operating on different principles and from different primary energy sources [3]. The most promising are: solid fuel power plant on local fuel, derivative micro hydroelectric power station, wind farm with vertical axis of rotation and collector solar power plant. These power plants are the most effective in each of their groups; however, when choosing them for autonomous power supply, it is necessary to take into account the specifics of the area for the most optimal result.

References

1. Leon Freris, David Infield. *Technique\Energy: Renewable Energy*. URL: <https://1lib.eu/book/846812/5ac950> (дата звернення: 09.11.2020).
2. Солнечная энергетика / Виссарионов В.И., Дерюгина Г.В., Кузнецова В.А., Малинин Н.К.; под ред. В.И. Виссарионова. Учеб. пособие для вузов. Москва: Издательский дом МЭИ, 2008. 276 с.
3. REmap 2030: Renewable Energy Prospects for Ukraine. URL: https://www.sae.gov.ua/sites/default/files/ENG%20IRENA_REmap_Ukraine_paper_2015%201304.pdf (дата звернення: 26.11.2020).

Language adviser: *Kryvonos I.A., Senior Teacher of the Department of Foreign Languages, Dmytro Motornyi Tavia State Agrotechnological University*

COMPARATIVE ANALYSIS OF VIDEO EDITORS ADOBE PREMIERE PRO AND SONY VEGAS PRO

Zyuzin N.N., zyuzin.kolya.4195@gmail.com
Dmytro Motornyi Tavia State Agrotechnological University

The ability to edit videos can be a useful skill and a way to make money online. It is generally accepted that you can learn how to edit by yourself. But when the task arrives, to edit a wedding video or some kind of a clip, where the skills of a non-beginner are required, the realization comes that editing is not such a simple matter. The question of which program is better for editing appears while considering the options how to learn professional editing.

Sony Vegas Pro and Adobe Premiere Pro are two representatives of the most famous video editing software. Most people still cannot choose which of the software is better. There is an opinion on the Internet that Sony Vegas is better for a beginner, while Premiere Pro, on the contrary, is more suitable for a professional. In this article the pros and cons of these programs from the view of a new user who is not familiar with video processing will be analysed.

Interface: when starting Adobe Premiere for the first time, a beginner may be intimidated by the large number of windows and tabs. Nevertheless, the interface can be customized. As for the Vegas interface, the interface is a little simpler here. The program meets the user with a minimalistic interface with a minimum number of windows. We can say that it is due to this minimization that most novice editors prefer Sony Vegas Pro.

Language: the Russian language is present in both programs, however, most Premiere Pro users advise exactly English due to the fact that in Russian some tabs have incorrect translation, and most of the tutorial lessons are in English.

Video editing: both programs have no problem with tools to work with, but Premiere Pro has more potential. In addition to the usual operations for trimming, gluing, inserting a video, you can also add various effects. These effects allow customers to give their video a more unique look. In addition to the standard effects available in the program, there are a large number of third-party plugins that significantly expand the program's capabilities. Vegas Pro has no problems with video