

of The Elegant Universe and The Fabric of the Cosmos, tackles the existence of multiple universes in his latest book.

To conclude, modern science has quite a sphere of action. On the other hand, people know too little to make hasty conclusions based on sensational hypotheses and theories.

References

1. Ehrenfest P. In what way does it become manifest in the fundamental laws of physics that space has three dimensions? Amsterdam: Proc. Amsterdam acad., 1917. Vol. 20. 200p.
2. Green B. Hidden Reality. URL: <http://www.briangreene.org/the-hidden-reality/> (дата звернення: 20.11.2020)

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ALTERNATIVE SOURCES OF ENERGY IN UKRAINE

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Nowadays alternative energy has become an important part of the modern world. Due to the reduction of traditional energy sources, rising prices for them, concern about environmental issues, Ukraine as the world economy is increasingly paying attention to the search and development of non-traditional and renewable sources. But the development of alternative sources of energy is constrained by:

- lack of scientific elaboration of this issue;
- lack of material and technical base;
- organizational and administrative reasons.

The most interesting and renewable source is the Sun. The intensity of solar radiation in Ukraine shows that almost all its regions are suitable for the development of solar energy. South regions of our country have the most convenient conditions for the use of solar energy. But current situation can be characterized as the initial stage of development of this process. Solar energy is used in grain dryers, desalination plants, in power plants of space stations and so on. It can be obtained in different ways: by thermoelectric converters, photoelectric converters, and steam turbines.

Thermoelectric converters work in the following way: the direct conversion of the thermal energy of solar radiation into electricity is based on the Seebeck effect – if you solder the ends of two conductors of different chemical composition and place the joints in environments with different temperatures, then between them there is a thermal energy.

Photoelectric converters work by the principle of knocking out electrons from semiconductor materials by light. Radiant energy will be converted into electricity.

Steam turbines. The tower with the receiver is located on the southern edge of the field of heliostats rotating after the Sun. Mirrors reflect the sun rays on the heat sink, which produces high-temperature steam (500-600 ° C), which is fed to a steam turbine that rotates the generator. Usually steam turbines also contain solar batteries for producing more power.

In conclusion it should be pointed out that if a person wants to get one of solar panels for himself, he or she can actually sell energy that they do not use to the state. This is called green tariff. In Ukraine it is a mechanism that stimulates the use of renewable energy sources. You are installing a solar power plant in a private house or in another territory. Thus, in 4-7 years the cost of the equipment is fully paid off, and then the net income can be received.

References

1. Andreev V.M., Grilikhes V.A., Rumyantsev V.D. Photovoltaic conversion of concentrated solar radiation. 1997. 308 p.
2. Vasiliev Yu.S. Renewable energy sources: A textbook. 2008. 251 p.
3. On alternative energy sources: Law of Ukraine VVR. 2003. №3. P. 155.
4. Solar thermal collector: website. URL: https://en.wikipedia.org/wiki/Solar_thermal_collector (Last accessed 9.11.2020)

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ADVANTAGES AND DISADVANTAGES OF DISTANCE COMMUNICATION SOFTWARE

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It's no secret that the world is shrouded in a terrible pandemic. In this regard, the quarantine regime was introduced everywhere, which affected the format of studying in all educational institutions. Distance learning has become an inherent aspect of the student today. But here, in Ukraine, opinions differ regarding distance learning. Some believe that this is the best thing that happened to the education system of all time, for others it only brings inconvenience.

In Kiev, a group of journalists conducted a survey among students regarding their attitude to distance learning. About 64.5% of capital students are happy with this regime and they consider the lack of live communication with participants in the educational process as a disadvantage. In this regard, students are less motivated to study further and self-discipline worsens [1].

We'd like to say that the issue of distance learning had interested us very much, so that's why we want to go through the list of programs used by students in Ukraine in order to choose the best communication software for distance learning.

ZOOM advantages are: it is one of the most popular apps for studying in Ukraine, because it's plain and cozy; host can control every person, adjusting their volume and video. Free version's conference can't be longer than 40 minutes. ZOOM disadvantages are: free version's conference can't be longer than 40 minutes. It means that teacher needs to restart a conference 2-3 times per lecture; secure system is weak and this is not the first time you can hear that some trolls screwed up someone's conference; moreover, students can't adjust other members, which could be loud. This function available only for the host, it can bring inconvenience.

GOOGLE MEET advantages are: Google provides browser's communication service and it means you don't need to install it on your PC or phone; one-click connecting; this system provides secured connection; real-time subtitles powered by Google speech recognition technology; unlimited meetings. GOOGLE MEET disadvantage is: there is no microphone and video fine-tuning tools [3].

ADOBE CONNECT advantages are: you don't need to install it; it is possible to play multimedia files, flash animation, mp3 and many others. It means as files in 100% quality, unlike other services, where the broadcast information transmits through a microphone or screen directly by the teacher, which significantly spoils the quality. ADOBE CONNECT disadvantages are: many functions that will surely be difficult to understand for both the teacher and students; inconvenient interface, especially on mobile devices [2].

DISCORD advantages are: it's handy and cozy for young people, initially for gamers, but now it's focused on distance learning too; it is one of the most stable and secured app for communication now. It counts a big number of difficult algorithms which protect us from hackers or trolls. DISCORD