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Dmytro Oryshchuk
Svitlana Piddubchak

INTEGRATION OF ELECTRONIC DEVICES AND TOOLS IN VARIOUS SPHERES OF HUMAN ACTIVITY

Vinnytsia National Technical University

Анотація.

Електронні пристрої та прилади стали невід'ємною складовою сучасного життя, сприяючи підвищенню його ефективності та зручності. Однак, яким чином вони стали невід'ємною частиною кожної галузі науки та техніки? Що відбулося приблизно сто років тому, що змусило їх стати необхідними для суспільства, немов другим киснем для людини? У цій статті розглянуті важливі аспекти цих питань, які спонукають до глибокого розуміння впливу електронних пристроїв на сучасний світ.

Ключові слова: електроніка, електричні пристрої, електричні прилади, людська діяльність, сфери діяльності.

Abstract.

Electronic devices and appliances have become an integral part of modern life, helping to increase its efficiency and convenience. However, how did they become an integral part of every branch of science and technology? What happened about a hundred years ago that made them necessary for society, like second oxygen for a person? This article examines important aspects of these issues that lead to a deeper understanding of the impact of electronic devices on the modern world.

Keywords: electronic; electronic devices; electronic tools; human activity; sphere of activity;

Introduction

At one time or another, everyone has undoubtedly utilized electronic devices and tools. In fact, we are constantly surrounded by objects powered by electronic energy, often without giving it a second thought. Despite this, it's important to recognize that for the majority of human history, people lived without reliance on electronic items. This realization has sparked my desire to address this phenomenon in an article, driven by a professional commitment to understanding and solving the underlying issues, and providing explanations for their prevalence in modern society. [1]

Research results

The necessity to create electronic devices and tools to solve human problems is a fundamental aspect of the relatively young field of Electronics. Since its inception at the beginning of the 20^{th} century, Electronics has undergone significant transformations, particularly in its foundational elements. The invention of the electrovacuum lamp, capable of transmitting current in one direction, was a crucial advancement that paved the way for electronic computing machines (ECMs). [2]

After a while, lamps were replaced by a revolutionary element called a transistor, made from semiconductor materials. This led to new possibilities in device development, including radios, computers, and other technologies. Scientists then aimed to make their inventions smaller and more efficient, leading to the creation of integrated chips containing multiple components in one. Overall, the trend in developing electronic devices and tools can be summed up as follows: increasing computing power while reducing size and energy usage. [3]

Electronic devices and tools are used in every aspect of human life, mainly because they help us work more efficiently. It's important to note that their value isn't just in making tasks easier or reducing workload, but in their ability to perform tasks that humans canэt do physically. For instance, they can remember large amounts of information, quickly and accurately perform simple logic operations, and carry out powerful tasks in a shorter period of time.

Following this path, it's unclear where this science will ultimately lead, but one thing is clear: people are continually exploring the world, its phenomena, and its laws.

In today's world, there are several branches of science that heavily rely on electronics. Some examples include:

1. Computing technology, which requires specific hardware for operations.
2. The electric transportation industry, which designs engines powered by electronic energy.
3. Science and technology fields, which require new equipment for research.
4. Communication, which provides the means for receiving and transmitting information.

Moreover, electronic devices are increasingly important in many aspects of human life. This highlights the essential role of electronics in modern times. [4], [5]

Conclusion

In conclusion, research clearly demonstrates that the introduction of electronic devices significantly improves the quality of human life. By examining the origins and development of electronics and its impact on various fields, it is evident that electronic devices have propelled significant advancements in science and technology.

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Орищук Дмитро – студент групи ЕЛ-23б, факультету інформаційних електронних систем, Вінницький національний університет, Вінниця, e-mail: orisukzimitrok@gmail.com

Науковий керівник: ***Піддубчак Світлана Юріївна*** – викладач кафедри іноземних мов, Вінницький національний технічний університет, м. Вінниця, e-mail: piddubchak@vntu.edu.ua

Dmytro Oryshchuk – student of group EL-23b, faculty of information electronic systems, Vinnitsa National University, Vinnitsa, e-mail: orisukzimitrok@gmail.com

Scientific supervisor: ***Svitlana Y. Piddubchak*** – a teacher of English, Foreign Languages Department, Vinnytsia National Technical University, Vinnytsia, e-mail: piddubchak@vntu.edu.ua