

Код УГПС – 11.00.00

ЭЛЕКТРОНИКА, РАДИОТЕХНИКА И СИСТЕМЫ СВЯЗИ

Тема 5. Технический прогресс: перспективы и последствия. Современные средства связи

Область образования – Инженерное дело, технологии и технические науки

1. READING Telecommunications industry trends

- a) What is the role of telecommunications in modern world? What telecommunications do you use in your daily life?
- b) Means of communication and digital technologies are improving more and more every year. Read the text about new trends in this field.



Telecommunications play an extremely important role in our lives. From mobile phones to the Internet, telecommunications help us to keep in touch with our friends, family, and colleagues around the world. The telecom industry is always changing, and here are some of its trends.

5G

5G is the **wireless** technology that provides very high speed for communication and can support millions of connected **devices** at once. Examples of using 5G include watching ultra HD videos, playing online games without any **lag** and downloading large files in milliseconds. Besides, this technology makes possible self-driving cars and telemedicine.

Internet of Things

The Internet of Things (IoT) is a system of devices connected to the Internet that can communicate and share information. IoT helps telecom companies to monitor data centres remotely. This technology is also used in smart homes. For example, when you turn off your alarm clock, the IoT system can open the window, turn on the coffee maker and even play your favourite morning playlist.



Cloud computing

Cloud computing is **storing** data on the Internet instead of on your computer. It means that people can **access** their data from any **device**, anywhere in the world. In addition, cloud technologies allow telecom companies to reduce server costs and offer new services, such as video conferencing and streaming. Some of the most famous Russian cloud services are Yandex Disk and Mail.Ru Cloud.

However, there are also some disadvantages of these technologies. Firstly, people worry about their **privacy** when data is shared through cloud platforms because hackers may steal their important information. Secondly, using digital technologies can make us **rely on** them too much. If some technical problem happens, the whole system may stop working completely. Finally, 5G technology and IoT **devices** need a lot of energy, which can damage the environment.

KEY WORDS

- **telecommunications** – телекоммуникации
- **wireless** – беспроводной
- **device** – устройство
- **lag** – задержка
- **monitor remotely** – контролировать удаленно
- **cloud computing** – облачные вычисления
- **store** – хранить
- **access** – получить доступ
- **privacy** – конфиденциальность
- **rely on** – полагаться на что-либо

2. SKILLS Profile case

Project. Make a presentation about one of the telecommunications companies in Russia and show it in class. Remember to mention:

- general information about the company (year of foundation, importance in the country's telecommunications industry);
- main services offered by the company;
- what modern telecommunications technologies (mentioned or not mentioned in the text) the company uses and how they work.

DISCUSSION

c) Discuss in pairs.

- In your opinion, does the use of modern technologies in telecommunications have more advantages or disadvantages? Explain your answer.
- What special problems may telecommunications companies face in Russia?
- What can be the possible solutions to the problems of modern technologies in telecommunications industry?