

**Natalia Temchuk,**

Research supervisor: Pavlo Strubytskyi

Candidate of Technical Sciences, Associate Professor

Language tutor: Tetiana Piatnychka

Candidate of Philological Sciences, Associate Professor

Ternopil National Economic University

## **COMMUNICATION SYSTEMS**

In the given work we have made an attempt to determine main types of communication systems, evaluate their impact in the modern world, describe technologies associated with them and explain why technological means are so powerful nowadays. 96% of population of highly developed countries uses various communication technologies. The number shows a huge role of computers in our life.

A communications system is a collection of communications equipment that is integrated into a coherent system, providing access to information through telecommunications which refers to the transmission of signals over a distance for the purpose of communication. Information is transmitted by devices such as the telephone, radio, television, satellite, or computer network. But in the modern world communication mainly means transferring information over the Internet, via modem, phone lines or wireless network [1].

Optical, power line and radio communication systems are differentiated by media. Optical communication system is any form of telecommunication that uses light as the transmission medium. Equipment consists of a transmitter, which encodes a message into an optical signal, a channel, which carries the signal to its destination, and a receiver, which reproduces the message from the received optical signal [2].

There are different types of communication systems according to application area, for example, automatic call distributor, tactical and emergency communication systems. Tactical communications system is a system that is used within tactical forces and allows to stay in touch with central command securely. Another distinction in types of communication is duplex communications. It allows both parties to communicate with each other at the same time [3].

Communication technology influences business and society making sharing the ideas and information more efficient. Because of telecommunications, people can now work at home and communicate with their office by computer

and telephone. This is called teleworking. In call centres, assistance or support is given to customers using the telephone, email or online chats.

There are many forms of digital and communication technologies in the 21st century. Digital technology is the use of electronic tools to store and process data, this includes social media, applications and online games. Thanks to wireless connectivity, mobile phones and BlackBerrys we check our email, browse the Web and connect with home or company intranets, all without wires. The use of GPS in cars and PDAs is widespread, so we can easily navigate in a foreign city or find the nearest petrol station. In the next few years, GPS chips will be incorporated into most mobile phones. Another trend is wearable computers – devices which can be worn, for example, on belt, or even sunglass which is enable to getting email and provides other different functions. Some devices are equipped with a wireless modem, a keypad and a small screen; others are activated by voice.

People of all ages and abilities can use and benefit from using communication technology. Rapid growth has led communication systems to become a keystone of everyday life.

### **References:**

1. Cambridge. Professional English. Infotech English for computer users, 2008. – 136 p.
2. Communications system [Electronic resource]. – Access mode: [https://en.wikipedia.org/wiki/Communications\\_system](https://en.wikipedia.org/wiki/Communications_system)
3. Different Types of Communication Systems [Electronic resource]. – Access mode: <https://www.managementstudyguide.com/different-types-of-communication-system.htm>

**Rostyslav Turchyn,**

Research supervisor: Vasyl Yatskiv

Candidate of Technical Sciences, Professor

Language tutor: Oksana Nychko

Candidate of Philological Sciences, Associate Professor

Ternopil National Economic University

## **METHODS OF SOFTWARE PROTECTION**

In today's fast moving world computer piracy is one of the most important problems of the world's software industry. According to some sources, a total