

ABSTRACT

Master's thesis: 96 p., 26 fig., 30 tabl., 3 app., 51 sources.

Topicality. Today, the use of computers, laptops and smartphones has become a commonplace for humankind. Electronic devices are used to store, use and transfer information between them. But with the development of information technology, there are also various opportunities for their theft by individuals who are not entitled to access them. Loss of confidential information, as a result, for large enterprises may turn into a loss of partial capital, and sometimes at all, will lead to the closure of the enterprise. To avoid data loss situations, there are currently many ways to store and transfer information, one of which is steganography.

Relationship of work with scientific programs, plans, themes. The work was performed at the department of the automated systems of information processing and management at the Institute of Cybernetics named after. VM Glushkov of the National Academy of Sciences of Ukraine within the framework of the research theme "To develop algorithms optimal for accuracy and speed of solving problems: integration of fast-sensing functions, digital processing of signals and images, remote monitoring of objects, information security" (VF 140.14, the number of state registration: 0114U000357).

The purpose and tasks of the study are to improve the quotient stability of the algorithm based on the discrete function convolution theorem.

To achieve the goal, you must complete the following list of tasks of the study:

- analyze modern means of information protection;
- analyze modern means of steganography;
- study and analyze the algorithms of steganography;
- implement an algorithm for concealing secret information in an empty container (steganographic algorithm);
- implement an algorithm for user use;
- analyze the results of the algorithm and compare them with the results of similar algorithms.

The object of research is the process of hiding user data in empty containers using steganography techniques.

Subject of research - algorithms of steganography.

The research methods used in this paper are based on methods of information security information and steganography.

Scientific novelty of the obtained results. In the presented work, we investigated a method for improving the steganal algorithm based on the discrete function convolution theorem. With the fact that every year the amount of information stored and to be protected and transmitted increases, it becomes necessary to find solutions that keep this information secret and hide the fact of its existence at the time of transfer and preservation. The developed product allows to more effectively hide secret information in public data sources, which allows secretly to exchange and store secret information.

Publications. The materials of the work are published in the publication of the International scientific conference "Actual scientific research in the modern world" [2]; in the publication of the International Scientific Conference "Modern scientific challenges and trends" [3]; in the theses of the scientific conference "Informatics and Computing - IOT-2018" [4].

STEGANOGRAPHY, ALGORITHM, CLEAR SCREEN, SAFETY OF INFORMATION.