

ABSTRACT

The work contains 67 pages, 4 illustrations, 1 tables, 23 sources of information were used.

Topicality. Nowadays the problem of information security is very important and a lot of resources are spent to solve it. Because wireless sensory networks are becoming more popular in our day and are used in many areas of our lives, requirements for such networks also increase. Wireless communication and the features of the operation of such networks require a special approach to security issues in the WSN.

The aim of this work is to explore the features of the operation of wireless sensor networks, attacks on the network and existing methods of information protection. And also to propose a new method of information security in WSN.

To achieve this goal, the following tasks were set:

- study of the features of the operation of the WSN;
- study of reliability indicators of the security system in the WSN;
- determining the most common attacks on the network of this type;
- research of existing methods of information security in WSN;
- development of a mathematical model of the proposed method for improving the protection of information in WSN.

The object of research - wireless sensor networks.

The subject of research - attacks on the network and methods of information protection.

Scientific novelty of work is to create an improved method for protecting information in wireless sensory networks.

Approbation. The results included in this work were presented at two international conferences:

1. XI International Scientific Conference "Problems TELECOMMUNICATIONS 2017" 18.04-21.04.2017r. at the Institute of Telecommunication Systems and Telecommunications Research Institute KPI them. Igor Sikorsky.

2. XII International Scientific Conference "Problems TELECOMMUNICATIONS 2018" 16.04-20.04.2018r. at the Institute of Telecommunication Systems and Telecommunications Research Institute "KPI";

Publications:

1. Turanska OS, Lysenko OI Information Security in Wireless Sensor Networks // Turanska OS, Lysenko OI - "Problems of Telecommunications" eleventh international scientific conference dedicated to the Day of Science and World Day of Telecommunications (PT-17) 18-21 April 2017, K .: with. 420...422;
2. Turanska OS, Petrova VM Guiding principles and approaches to information security in Wireless Sensor Networks// Turanska OS, Petrova VM - "Problems of Telecommunications", the twelfth international scientific conference dedicated to the Day of Science and World Day of Telecommunications (PT-18), 16-20 April 2017, K .: p. 383...385;

Key words: wireless sensor networks, sensory node, security of information, attack on the network, mathematical model