The theme of the final qualifying work: the Development of remote control and access control to the sensitive object (for example, SP Emelyanenko Yu. N., G. Zheleznovodsk, p. Inozemtsevo

Author WRC: Emelyanenko Rodion

Scientific supervisor: Cand. Techn. associate Professor of the Department of information and communication technologies, mathematics and information security V. A. Kozlov

Information about the customer organization: PYATIGORSK state University»

Relevance of the research topic. In ACS systems, the concept of the identification process is the main one. With proper use of ACS ensure the suppression of unauthorized access to the protected area, on the floor or in the room. Therefore, the development of a system of remote control and access control to a sensitive facility based on two-factor authentication is an urgent scientific task.

The work purpose: study of the monitoring system and managements of access (skud), her analysis of the revision of the main characteristics.

The objectives of the study are: the study of the structure of the organization and the subject area of its activities; familiarization with the tasks of practical activities of ACS on IP Emelyanenko; analysis of methods and means of ensuring the control of incidents of information security violations, classification of violations and their classification by the nature of violations; study and analysis of issues related to the protection of information institutions; development of proposals to improve engineering and technical support within the system of control and access control.

Theoretical significance of the study: the shortcomings of the system of remote control and access control operating on the object under study are revealed; the legal and legislative documents in the field of information security are analyzed; the existing systems of software and hardware information security at the object of study are studied; a mathematical model and algorithm for its implementation of the remote authentication module based on a hybrid probabilistic model of cryptographic transformations are developed.

Practical significance of the results: possible variants and types of remote control systems for access control of vehicles to the protected area are analyzed and investigated; a mathematical model and algorithms for solving the automatic version without the operator of the remote control system and access of vehicles to the protected area of the object are proposed.

Research result. The Program implementation of the algorithm of dialog authentication based on the probabilistic hybrid model Was tested performance of the program.

Recommendations: to Refine and use the program implementation of the algorithm of dialog authentication based on the probabilistic hybrid model to improve the reliability of ACS authentication