



IMPROVING THE EFFICIENCY OF THE CLASSIFIED OBJECT PROTECTION SYSTEM

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Abstract

This article contains the categorized objects in the curfew system proposals and methods for improving engineering and technical means of protection lit.

Keywords: Video surveillance, face recognition, cloud technology, drone flying hardware, input and output control, automated systems, artificial intelligence.

Introduction

In the modern world, ensuring the security of objects of particular importance is becoming one of the main tasks of state organizations. Facilities categorized as industrial plants, scientific laboratories, healthcare facilities, and other critical infrastructure facilities require special attention from a security perspective. Improving the security systems of these facilities is a pressing issue, as security threats are becoming increasingly diverse and complex. In the context of globalization and technological progress, the need for effective and reliable security systems is growing. [1; 12 b].

Modern security technologies, such as access control systems, video surveillance, and alarms, play an important role in ensuring security. However, despite the availability of these technologies, many organizations face challenges integrating them and adapting them to the specific characteristics of the facilities they are protecting. It should be noted that insufficient classification of objects and the lack of a unified approach to their protection can create vulnerabilities and risks. [4; 101 p].

This article examines several key topics related to the improvement of security systems for categorized objects. First, the issue of modern security technologies is analyzed, including their advantages and disadvantages.

Engineering and technical security measures, such as video surveillance and alarm systems, are central to the discussion, as they are key tools for monitoring and preventing threats.

Modern security technologies and security systems

Modern technologies for protecting classified facilities require taking into account many factors, such as the level of threat, the scale of the facility being protected, and its operational characteristics. Innovation in the field of security systems is becoming an important aspect of effectively ensuring the resilience of facilities to various threats, including cyber threats, physical intrusion, and internal risks.

The analysis of modern security technologies begins with the integration of video surveillance systems, which continue to evolve to this day. Smart cameras with facial recognition and real-time image processing capabilities allow for rapid response to potential threats. The use of cloud technology makes video surveillance systems more convenient and flexible to control. The integrated use of analysis platforms for video data processing makes it possible to distinguish false signals by filtering contextual phenomena and distinguishing between really dangerous situations. [5; 33 b].

The more commonly used biometric identity was not left out either. Systems based on fingerprints, eyeballs, or voice authentication can significantly increase access to guarded objects. These methods provide a high level of protection against unauthorized access by creating multi-layered barriers. [4; 105 p].

Integration of intelligent security systems opens up new avenues for monitoring and control. Smart sensors installed around the perimeter of a facility can detect changes in the environment, such as vibrations, disturbances, or movement, and immediately transmit data to a centralized control center. Real-time interaction of various security devices allows for rapid response to incidents, significantly reducing the consequences of a breach.

Another direction is the use of drones to patrol large areas. Unmanned aerial vehicles are successfully used to inspect the outer perimeter, as well as in situations that require rapid movements in hard-to-reach areas. These devices can be equipped with cameras, thermal imagers, and other sensors, which allows them to effectively perform tasks related to the protection of objects.

The development of software for the management of guard systems is considered significant. Modern applications allow centralized control of all aspects of guarding, data analysis and setting scenarios for different situations. This approach makes the system more flexible and adaptable to changing conditions, providing a high level of security. The areas of focus in the security sector are also shifting towards cybersecurity in the context of the active introduction of digital technologies into traditional security systems. The urgent need for data protection forces organizations to develop measures to protect against hacking attacks and data breaches.

In this way, modern security technologies are becoming not only a means of protection, but also a key element in ensuring a strategic approach to security, meeting the demands of the times and market requirements. Effective implementation of these technologies requires the integration of various systems and approaches, which requires continuous development and innovation in the field of security of categorized objects. [3; 45 b].

Engineering and technical protective equipment

Engineering and technical security measures play an important role in ensuring the safety of categorized facilities. These measures include video surveillance systems, alarms, access control, as well as various barrier structures and devices. Modern video surveillance systems make it possible not only to monitor the territory, but also to analyze events. The use of intellectual technology makes it possible to recognize the face, observe suspicious behavior and record violations. This significantly increases the level of guarding, since quick decisions can be made based on the data collected.

Alarm systems, in turn, must be integrated with other guard elements. This allows for maximum speed of action in the event of a threat. For these systems to operate effectively, regular inspections and maintenance are required to prevent possible failures. [2; 23 b].

Access control provides practical control over the flow of people and vehicles into and out of a facility. The use of biometric technologies, access cards, and identifiers can significantly reduce the likelihood of unauthorized access. In this context, it is important to support all access levels to minimize the risk of confidential information being leaked.



Barrier structures, such as fences, boom gates, and barriers, serve as physical barriers to entry into protected areas. They can be supplemented with motion sensors and alarm systems, which provide a high level of protection against threats. The integration of these physical means with electronic security systems forms a comprehensive approach to security.

New technologies, such as intelligent systems, provide additional monitoring and control capabilities. These technologies allow for real-time data collection and analysis, which can help predict potential threats and minimize losses. The introduction of automated systems also helps to reduce the human factor in the curfew process, which increases the level of reliability in this area.

Working with engineering and technical protective equipment requires constant monitoring of new technologies and methods. This allows for the adaptation of existing systems to modern threats, as well as the implementation of the most effective solutions for protecting categorized objects. [6; 155 p].

Integrated approach to the guard system

A comprehensive approach to security requires a systematic analysis of all aspects of the security of categorized facilities. Considering the security system as a whole, rather than individual elements, allows for the creation of more reliable and effective security measures. Each object is characterized by specific threats, therefore, it is necessary to take into account both internal and external risks, to carry out a safety assessment in the conditions of a particular situation.

The focus is on integrating different guard technologies and methods. For example, the combination of video surveillance, access control, and security alarms creates a multi-level defense, where each element supports and reinforces the others. In addition, the use of analyzers, such as video surveillance systems with facial recognition, increases the speed of movement towards threats.

There is a need to constantly update and improve the current systems. Technological advances in security offer new solutions that can significantly increase the level of protection. For example, using artificial intelligence to analyze visitor behavior allows you to detect suspicious activity before it becomes an incident. This will reduce the likelihood of emergencies.

The ever-changing criminal environment requires security systems to be flexible. Building and maintaining relationships with law enforcement agencies, as well as sharing information and expertise with other organizations and security

professionals, can increase the level of protection. Security systems are only successful if they are integrated into an overall security strategy and take into account the movement of potential threats. [4; 45 b].

Conclusion

In conclusion, it is worth noting that improving the security system for classified facilities is a pressing issue that requires a comprehensive approach and the introduction of modern technologies. In the face of constantly changing security threats, it is necessary to adapt existing security systems to new realities. Modern security technologies, such as access control systems, video surveillance, and alarm systems, play an important role in ensuring the safety of facilities that require special attention.

Engineering and technical security measures, such as video surveillance and alarm systems, must be adapted to the specific characteristics of the protected facilities. This includes not only the installation of equipment, but also its regular updating and maintenance. It is important that all components of the security system work together to ensure maximum efficiency.

Classification of facilities for safety is an important aspect that allows safety measures to be adjusted to specific conditions and risks.

The integrated approach to the guard system involves the integration of various subsystems, which allows for a more stable and effective security system.

Improving security systems for classified facilities requires constant analysis and the introduction of new technologies, as well as adaptation to changing conditions. Only a modern and technology-based integrated approach can ensure reliable protection of facilities that require special attention. It should be remembered that security is not only technical means, but also the human factor, which plays a key role in the successful implementation of all security measures.

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