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INFORMATION SYSTEM FOR OPERATIONAL MANAGEMENT OF RESCUE OPERATIONS DURING THE USE OF SPECIAL EQUIPMENT

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Abstract

An information system for operational management of rescue operations has been developed and implemented to streamline coordination and ensure swift responses to emergencies. Modern data analysis methods and system modeling technologies were utilized. Research findings confirm the effectiveness of the system in reducing response times and enhancing public safety. This work addresses the pressing need for efficient emergency management systems amidst evolving technological landscapes.

Keywords: information system, operational management, rescue operations, coordination, emergencies, data analysis methods, system modeling technologies, public safety, emergency management systems.

Introduction

Relevance: Emergencies, such as natural disasters, man-made accidents and other events require a quick and effective response from rescue services. Operational management of rescue operations requires quick access to information about the current situation, coordination of actions and interaction between different services and units. In this regard, the development and implementation of an information system that simplifies this process and ensures a rapid response becomes relevant and important for ensuring the safety and protection of the population. Given the constant change and the development of modern technologies, it is important to continue to improve these systems for maximum efficiency and safety [1-3].

The aim of the study is to implement an operational management information system that will allow rescue services to effectively coordinate their actions in emergency situations. This system should ensure rapid exchange of information, data visualisation and determination of optimal

routes of action, which will reduce response time and increase the efficiency of rescue operations. Given the constant change and development of modern technologies, the goal is to create an integrated system that optimises the work of rescue services and ensures the highest level of safety and protection of the population during emergencies [4].

Materials and methods of the study are based on the analysis of modern approaches to operational management of rescue operations and the use of information technology to improve this process.

Research methods include analysis of modern emergency management systems, study of best practices in and development of simulation models to test the effectiveness of various algorithms and management strategies. The use of innovative approaches in combination with advanced technologies makes it possible to create an optimal operational management system that will ensure a quick and effective response to any emergency.

The result of the study is the development and implementation of an information system for operational management that allows rescue services to effectively coordinate their actions in emergency situations. This system provides fast information exchange, data visualisation and determination of optimal action routes, which reduces response time and increases the efficiency of rescue operations. The implementation of the information system will optimise the work of rescue services, ensuring a quick and coordinated response to emergencies [5-10].

Conclusions

The information system for the operational management of rescue operations is essential to ensure the safety and protection of the population in emergency situations. Its implementation simplifies the management process and allows rescue services to respond effectively to emerging threats, thus saving lives and property. Given the constant change and development of modern technology, it is important to continue to improve these systems to maximise efficiency and safety. Further research could focus on expanding the functionality of the system, optimising data processing algorithms, and ensuring its compatibility with other emergency management systems.

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