



15th International scientific conference “Underground Urbanisation as a Prerequisite for Sustainable Development”

Artificial intelligence and organizing decision in construction

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Abstract

In construction one of the important factors of the effective development of the construction production is improving the methodology of management, as an economic entity. This became especially possible in view of the rapid development of computer technology and logical-linguistic methods. Active application of information and computing technology allows you to select economically feasible methods of management based on reliably grounded methods of artificial intelligence. The ways of solving the tasks in these studies were developed on the basis of the extension of mathematical and symbolic logic. Given the characteristics of the condition of application of methods of artificial intelligence in the field of organizational solutions for the construction. Stages of formation of organizational and technological solutions using rule-based expert systems, artificial neural networks, genetic algorithms. The proposed method is effective implementation of organizational and technological solutions with the use of its information models and systems of making management decisions on the results of monitoring the construction process. The basic information based on models of knowledge representation (semantic, frames, production rules and regulations, precedents), and concepts on the application of artificial neural networks in construction and information about the methods of extraction of knowledge and formation of knowledge bases. Examines the structure and functions of expert systems and decision support systems solutions.

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