

FINDING THE MAXIMUM FLOW OF MINIMUM COST IN FUZZY DYNAMIC NETWORK WITH A GIVEN VITALITY DEGREE

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This article is devoted to solving the problem of finding a minimal cost flow in fuzzy transport network with a given vitality degree. A special feature of the transport network is the dependence of all the fuzzy network settings on the flow time of departure. The transport network is seen as a dynamic, since it depends on the parameters of time and may be different at different times. Attributed to the edges of the network degree of vitality is the ability of facilities to withstand weather conditions, accidents and preserve the objects themselves, the capacity in case of danger. The article presents the main points of the algorithm, a formal algorithm for solving this problem, which is accompanied by a numerical example. These models can be applied to real networks of road, rail and air traffic roads for solving optimization problems.

Keywords: fuzzy dynamic network, flow of minimum cost, fuzzy vitality degree.

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