

ABSTRACT

Master's thesis: 96 pp., 36 fig., 1 tab., 1 app., 53 sources.

The relevance. The main direction of research is related to the theory of building a recommender system or network that is based on forecasting methods and selection of the most relevant options for travel routes for users of certain inputs from them. The main objective of any recommendation network is to make user interested in using the service, which operates the system and increase the chance that a user will use the services and customer service. Due to rapid development of information technology market travel packages very quickly moves online, it appears through many different online services on the selection of hiking trails, flight tickets services, hotel reservations and more. Accordingly, the main task of these services is to win the competition with others, it is possible to achieve third-party development of various auxiliary systems. One of the most relevant methods today is developing recommendation systems based on neural network.

Relationship with academic programs, plans, themes. Master's thesis are executed according to plan in processes managed optimization department at Institute of Cybernetics of V.M. Glushkov NAS of Ukraine within the research theme «Models and technologies of intelligent computing» (state registration number 16KF015-01).

The purpose and objectives of the study. The main goal of this research is creation relevant ranking of tourist destinations according to user needs.

To achieve the goal must perform the following tasks:

- perform inspection subject area;
- to analyze available data to present and use them in a neural network;
- make a project of neural network to determine the number of input and output data;
- develop an algorithm to generate the initial (training) data neural network;
- to analyze the results of the neural network;
- develop API methods for receiving data;

– to carry out a comparative analysis of the effectiveness of different methods of research.

The object of study is the process of selection of tourist routes.

The subject of the study is recommendation network.

Methods used in the paper are based on neural network algorithms for forecasting, frequency analysis.

Publications. Work results are published in conference abstracts of International Scientific Conference «The problems of automatization» [52], in the scientific journal «Young Scientist» [53] and in abstracts of scientific conference of students, masters and postgraduates [54].

RECOMMENDATION NETWORKS, NEURAL NETWORKS,
FREQUENCY ANALYSIS, DATA ANALYSIS, COMPARATIVE
ALGORITHMS, FORECASTING, HIKING TRAILS.