

ABSTRACT

Master's dissertation: 102 pages, 16 figures, 23 tables, 84 sources, 1 appendix.

Topicality. For Fozzy Holding, a very important component is the efficient work of employees, especially those who work outside the office. It is very important for the department to understand how this category of people works, what their tasks are and how they cope with them. Therefore, the use of information technology to organize the time of the mobile group is an urgent task today, because it will not only help employees in their work, but also allow management to clearly understand the tasks facing the employee and monitor their performance and workload of each them.

Purpose and objectives of the study. The aim is to increase the efficiency of the organization of the process of visiting branches and solving problems by an employee of the mobile group. To achieve this goal it is necessary to solve the following tasks:

- ☐ to analyze the known methods of solving the SLPTW problem;
- ☐ to improve the existing method of solving the problem with the help of parallel programming technologies;
- ☐ program implement SLPTW algorithm;
- ☐ solve the problem of algorithmic implementation of the algorithm;
- ☐ to conduct research on the effectiveness of the implemented algorithm. []

The object of research - is the process of laying routes to the head of the mobile group on security and safety of the retail network

The subject of the study - the task of improving the organization of working hours of a mobile group employee.

The research methods used in the work are based on metaheuristic algorithms.

The scientific novelty of the obtained results is to modify the algorithm of repetitive local search, to compare it with the algorithm of imitative annealing,

to use the parallel programming technologies to modify the algorithms of repetitive local search, and to simulate annealing algorithm to solve the problem of the SLPTW problem.

Publications. Umansky VA INFORMATION SYSTEM TO SUPPORT THE WORK OF THE MANAGER OF THE MOBILE GROUP ON PROTECTION AND SECURITY OF THE TRADE NETWORK [Electronic resource V.]. - 2020. - Resource access mode: ICTY-2020_очень.pdf. С 58-61

Umansky VA SOLVING THE PROBLEM OF SUPPORTING A MOBILE GROUP EMPLOYEE TAKING INTO ACCOUNT TIME WINDOWS [Electronic resource] / VA Umansky, OV Gavrilenko. - 2020. - Resource access mode: conference / tezi-mods.20.pdf. Pp. 24-27

DETERMINISTIC LOCAL SEARCH, ITERATED LOCAL SEARCH, SIMULATED ANNEALING ALGORITHM, TOURIST TRIP DESIGN PROBLEM, TEAM ORIENTEERING PROBLEM WITH TIME WINDOWS, PARALLEL PROGRAMMING, METAHEURISTIC ALGORITHMS