ABSTRACT

The thesis is presented in 35 pages. It contains 2 appendixes and bibliography of 8 references. Seven figures are given in the thesis.

The main goal of this work is to develop mathematical and software tools to schedule generation system. The diploma work analyzes existing solutions of the task such as: simulated annealing algorithm, graph coloring method, computer simulation method, constraint logic programming method, genetic algorithm. These methods are compared in terms of efficiency for the schedule generation. To solve the problem were chosen genetic algorithm.

Was developed an automated system that implements this method. Were provided tests for implemented program.

Key words: schedule genetic algorithm, chromosome, population, mutation.