

ABSTRACT

Thesis: 74 p., 22 fig., 9 tabl., 3 append, 17 sources.

INFORMATION SYSTEM, OPTIMIZATION TASKS, , OPTIMIZATION PROBLEM SOLUTIONS, EVOLUTIONAL ALGORITHMS, GENETIC ALGORITHMS, ARTIFICIAL IMMUNE SYSTEMS, METHOD OF PARTIALS, CLONAL ALGORITHM.

In this work the development of an information system for solving optimization problems is carried out.

The system is created on the basis of software analogues considered in the work: online resources and software applications. The shortcomings found in the analogues are taken into account, the significance of their influence on the work of the program and the convenience of its use. Useful modifications and technological solutions available in the considered analogues were used in work.

Within the thesis an information system was developed that allows solving many-eccentric optimization problems using evolutionary methods such as genetic algorithm, artificial immune systems and particle swarm method.