

ABSTRACT

The masters thesis: 70 p., 23 tab., 15 fig., 1 appendix, 43 sources.

INFORMATION SYSTEM, TESTING SYSTEM, ALGORITHM FOR CONSTRUCTING VARIANTS OF THE TEST, ALGORITHM FOR EFFECTIVE PASSING THROUGH THE GRAPH, MONTE CARLO METHOD, TESTING STUDENTS, TESTING ALGORITHMS.

Information technology for intellectual analysis of data for testing automation.

The work carried out to develop an algorithm for individual choice of test questions for testing automation systems in educational institutions.

The purpose of this work was to synthesize an effective way for selecting test questions to a test variant using existing algorithms, the Monte Carlo method, and machine learning methods. To achieve this goal, the following tasks were set and solved: the current state and peculiarities of application of ways of creating individual test variants were investigated; modeled the data structure and the way it is transmitted using the Monte Carlo method; formulated and solved the task of re-evaluating the difficulty levels of the testing process; created a program to implement the solution to the task; conceptual conclusions were drawn from the results of the work.

The object of research is algorithms and methods for selecting questions in automated knowledge testing systems.

The subject of research is the algorithms of individual choice of questions in the test task.