

## ABSTRACT

The thesis is presented in 52 pages. It contains 2 appendixes and bibliography of 14 references. Eighteen figures and 2 tables are given in the thesis.

The purpose of this graduate work is to create mathematical basis and software for calculation and projection of the living standard integral index of population, calculation of the necessary minimum wage for a person, depending on the costs.

Existing software tools for solving the problem are considered. The algorithms and methods for calculating the integral index of living standards of the population are researched and analyzed: the method of systematization and classification - M. Z. Zgurovsky methodology, the regional method. The algorithms and methods for prediction of the integral index of living standard of the population are analyzed: projecting methods based on smoothing, exponential smoothing and moving average, Holt and Brown methods, Winters' method. Based on the formulated criteria for the solution of the problem, the method of calculation and the method of projection is chosen. An automated system that implements selected methods is developed. The testing of the developed system is carried out.

Keywords: quality of life; standard of living; integral indicator; economic, social parameter; index of development of human potential.