ABSTRACT

The thesis is presented in 65 pages. It contains 2 appendixes and bibliography of 16 references. 17 figures and 3 tables are given in the thesis.

The goal of the thesis is to develop mathematical and software tools for solving the problem of recognition sound signals.

The paper contains analyzis of existing solutions for the task, determined the actuality of the present work, researched the practical reasons of the problem, and viewed the mathmaticas basis for it`s solving . The methods comparison made in terms of the accuracy of the resulting solutions, the efficiency of algorithms and methods in different conditions and for different problems. The main criteria for algorithm choice became robustness, because of requirement of method universality.

The automated system implementing the chosen method is developed. The developed system is tested.

Key words: audiosignal, recognition, spectral analyzis, discretization, pitch estimation, frequency, spectrum.