ABSTRACT

Thesis: 138 p., 15 figures, 5 tables, 36 sources, 2 donts.

Object of research: algorithms of analysis of audio signals by fragment.

Subject of research: image analysis.

Objectives of the study: creating a system for recognizing road signs in a photograph.

Tasks of the work: to analyze the existing algorithms of road signs recognition, to compare them, to choose the most effective and to develop on its basis a software product for recognition of road signs.

In the course of the work, the analysis of 5 most popular and most effective algorithms for image recognition, namely road signs, was performed, their comparative characteristics were performed and the corresponding software product was developed on the basis of the contour method of road signs recognition.

An analysis of existing problems in this area was made and a proposal was proposed to improve the recognition based on comparing the color of the road sign to recognize not only its contour, but also the type and content.

Tests and comparative analysis of the developed system were conducted.

The relevance of the project is motivated by the lack (or low popularity) of similar applications in the market as well as the discovery of the problem of pattern recognition.

The results of the work can be used both by commercial organizations and enthusiasts, who want to develop something similar.

IMAGE ANALYSIS, RECOGNITION, CANNY FILTER, CONVENTIONAL DISCLAIMER, C ++, OPENCV.