ABSTRACT

Master's thesis: 134 p., 61 fig., 3 tabl., Apendix 2, 13 references.

In this research the problem of restoration of unfocused and motion blurred images was studied, including proplem of noise influence during image deconvolution.

There was analysis of different types of linear images distortion, their point spread functions, methods of restoration performed in this paper. Analysis of different methods of noise filtering was performed as well.

Within the thesis a computer application was developed for restoration of unfocused and motion blurred images with the ability to choose different restoration and noise filtering methods. The application allows to load image file, to choose distortion type and its parametres, to perform restoration and to save resulting image.

The aim of this research is to develop method to improve image quality.

Method of conducting this research is methods of image processing.

IMAGE PROCESSING, IMAGE RESTORATION, PSF, DECONVOLUTION, NOISE FILTERING, TOTAL VARIATION, SUPER RESOLUTION.