Thesis: 75 p., 46 fig., 6 tables., 2 applications, 14 sources.

The object of the study are the approaches to colorization of the grayscale images.

The subject of research are the systems of colorization of the grayscale images.

Purpose is to investigate the approaches to colorization of the grayscaleimages, to develop software that implements one of the algorithms and to investigate the results of the programmed algorithm with different parameters.

Research methods are the methods of processing and imaging.

Explanatory note consists of four sections. The first chapter examines the problem statement of the thesis and the review of existing methods of solution. The second section describes directly the algorithm used to create the software. In the third section the software and the results of its work are demonstrated. The fourth section sheds light on the economic aspects of the project estimating the costs for software product development.

## COLORIZATION, COLOR TRANSFER, IMAGE PROCESSING