

## ABSTRACT

This thesis is completed on 59 pages, it contains 2 applications and a list of references to used sources of 17 titles. The paper presents 27 drawings, as well as 5 tables.

The purpose of this thesis is to create software in the form of an automated system for estimating the scale and height using the correlation radius of images.

This report is devoted to the results of the thesis on the topic "Estimation of the scale and height using the correlation radius of images". In the framework of the work the task for graduation designing is formulated, the criteria for choosing a method for solving the problem are formulated. For realization of the given problem mathematical methods such as autocorrelation function, pyramidal method, definition of flight height by means of artificial vision, recognition of texture of an image are considered. On the basis of the formulated criteria for the solution of the task, an estimation is made using the correlation radius of the images.

Also, software was implemented on the chosen theme, which allows you to calculate the height of the object and the scale of the image based on the chosen method. The testing of the system was carried out and the results table was compiled, the results obtained were analyzed, errors were calculated in each of the experiments carried out, conclusions were made for the tests and work in general.

Key words: aircraft, autocorrelation function, method of correlation radii, object height, scale of image, reference image, current image.