

ABSTRACT

Thesis explanatory note: 81p., 42 fig., 6 tab., 2 appendices, 18 sources.

The object of research – CCTV system.

The subject of research – tracking moving objects methods

The purpose of the work is to design and to develop the system which automatically tracks the moving objects in space in real time.

Methods and algorithms of recognitions and tracking of moving objects were reviewed and analyzed in this paper.

The computing system with camera for recognition and tracking of moving target was developed.

The system is implemented using the C++ and Python program languages with the help of computer vision library OpenCV and works under the control of OS Linux. The system works on microcomputer Raspberry PI 2 model B.

The accuracy of the work of the system is supported by the results of analyses of moving object's tracking system, which were made during the work.

The results of this study should be used for developing intellectual tracking systems of various moving objects , which uses artificial intelligence and/or object recognition methods.

OBJECT TRACKING, RECOGNITION, CAMSHIFT, KALMAN FILTER, CCTV