

## **ABSTRACT**

The bachelor's thesis: 66 p., 11 fig., 10 tabl., 2 appendices and 19 sources.

The theme of this thesis is "Module of pedestrian detection in video stream".

The purpose of this thesis is to develop a module of pedestrian detection in a video stream from the camera in a car. Several methods of computer vision and object detection in the video stream were analyzed in the thesis.

The results of the thesis:

- an algorithm for detection of pedestrians that are walking or standing on the road in the daytime was proposed;
- the proposed configuration of cascade classifier was implemented;
- an application with graphical user interface to demonstrate the module's work was developed.

The results of this thesis are recommended for use in the systems of computer vision in on-board computers or another devices with camera in the car. In further research it is reasonable to improve the quality of detection at nighttime and increase the speed of frame processing.

COMPUTER VISION, CLASSIFICATION, MACHINE LEARNING, IMAGE RECOGNITION, VIDEO STREAM, CASCADE CLASSIFIER, VIOLA-JONES, HAAR, HOG, LBP.