ABSTRACT

The master's dissertation consists of 5 sections, 95 pages, contains 23 illustrations, 38 tables, was processed 38 sources.

Purpose of the work: automation process of analysis thermographic images using neural network technologies, which will increase the information content and reliability of thermal imaging video surveillance systems.

Tasks of the master's dissertation:

1. Analyze the current state of thermal imaging video surveillance systems and identify areas for their improvement.

2. To get acquainted with the existing methods automated detection and recognition of objects on thermographic images.

3. Justify use of neural networks to improve quality of object detection and select the required type of network.

4. To develop algorithmic and software for the proposed automated system thermographic data analysis.

5. Conduct testing on real data and obtain quantitative estimates of the quality system.

Object of research: the process analysis thermographic images.

Subject of research: methods of automated detection and recognition objects in thermographic images.