

ABSTRACT

The thesis is presented in 52 pages. It contains and bibliography of 18 references. Four figures and 2 tables are given in the thesis.

The goal of the thesis is the creation of a mathematical and software for system of identification by handwritten signature.

The presence of an automatic recognition and verification system will reduce the probability of document falsification and increase the speed of identity authentication. In the thesis is analyzed the existing mathematical methods for creating software for subsystem of authentication by signature.

The Python programming language has implemented software for authenticating a person by signature using convolutional neural networks. A client-server application was created based on the Django framework.

PostgreSQL has been chosen as the database.

Keywords: signature, signature verification, signature authentication, convolutional neural networks, Django, PostgreSQL, learning functions.