

## ABSTRACT

The thesis is presented in 53 pages. It contains 2 appendixes and bibliography of 15 references, 24 figures and 2 tables are given in the thesis.

This work for education and qualification of Bachelor and dedicated to the development of mathematical and software cryptographic data protection.

The paper considered the application of cryptographic techniques to protect the information. The analysis and selection of the most optimal and most reliable methods of encryption.

For the solution of the problem chosen AES algorithm to encrypt files and method using RBF neural network to encrypt text messages.

The problem was realized by means of language Python using libraries PyBrain. Testing and made appropriate conclusions.

Keywords: encryption key cryptography, encryption, decryption, neural network, Python