ABSTRACT

The thesis is presented in 50 pages. It contains 2 appendixes and bibliography of 15 references. Ten figures and 2 tables are given in the thesis.

The goal of the thesis is to develop mathematical and software tools for solving the problem of Ukrainian language phonemes recognition by artificial.

In the thesis, existing solution are analyzed, such as artificial neural networks and hidden Markov models. In the thesis, artificial neural networks approach is used to solve the task.

Training set for each phonemes was modeled. The software for solving task using chosen approach was implemented.

Keywords: phonemes, artificial neural network, backpropagation, machine learning