ABSTRACT

Master's dissertation: 88 pp., 39 figs., 8 tables, 14 sources, 1 appendix.

Topicality. The creation of new methods of semantic analysis of texts will open new opportunities and allow us to significantly progress in solving many problems of computational linguistics, such as machine translation, authoring, text classification, etc. No less important is the development of new tools and instruments to automate semantic analysis. Such analysis methods allow us to collect basic information about the subject, focus, and mood of the texts, further simplifying the automated work with them, such as cataloging, search, and comparison. The use of semantic models is relevant in automated learning systems, extracting knowledge from texts, information retrieval, abstracting, checking the correctness of dictionaries of terms and definitions, automatic generation of associative links in hypertext databases, and more.

Connection of work with scientific programs, plans, themes. The work was performed at the Department of Automated Information Processing and Control Systems of the National Technical University of Ukraine "Kyiv Polytechnic Institute. Igor Sikorsky "within the theme" Methods and means of semantic analysis of texts ".

The purpose of the work - improving the quality of semantic analysis of Ukrainian-language texts by improving the semantic models and models of grammar of the Ukrainian language, taking into account the subject area of the text.

To achieve this goal you must perform the following **tasks**:

- analysis of modern methods and means of semantic texts analysis;

- review of existing resources for processing and analysis of Ukrainian-language texts;

- development of the LSA method with support for processing Ukrainian-language texts;

- review and selection of technologies for the implementation of methods and tools;

- software development;

- study of the effectiveness of the developed method and software.

The object of research is mathematical, informational and software of human-

machine communication in the Ukrainian language.

The subject of the research are models and methods of semantic analysis of the Ukrainian text.

The research methods used in this paper are based on the methods of semantic analysis of texts.

Scientific novelty - improved methods of semantic analysis, which include support for processing Ukrainian-language texts.

Applied significance. Methods and software can be used for semantic analysis of data of Ukrainian-language texts, which is supported by the draft concept of development of artificial intelligence of Ukraine.

Publications. The materials of the work are published in the abstracts of the international scientific-practical conference "TOPICAL ISSUES OF THE DEVELOPMENT OF MODERN SCIENCE" and in the abstracts of the scientific-practical conference "Informatics and Computer Engineering-IOT-2020".

SEMANTIC ANALYSIS, THEMATIC MODELING, UKRAINIAN LANGUAGE, LATENT SEMANTIC ANALYSIS, NATURAL LANGUAGE PROCESSING