anton@paramonov.info     oakim.ua@gmail.com

# PROJECT "AUTOMATED SYSTEM OF TEXT INTERPRETATION BASED ON FUZZY CONCEPTUAL MODELS"

**KEYWORDS:** Natural Language Processing (NLP), knowledge representation, symbol, morpheme, term, logogen, conceptual model, intellectual information search systems, fuzzy logic

# MAIN PROJECT IDEA

(Automated system of text interpretation based on fuzzy conceptual models)

- The conceptual multilevel word processing model based on division of semantic layers and method of generalization of the semantic loading of the text for symbol- morpheme-term layers was developed.
- On the basis of data from cognitive psychology the hybrid fuzzy model of knowledge representation is developed.
- The model of text information interpretation on the basis of fuzzy conceptual model is developed.
- The developed method can be used in development of information retrieval systems, systems of categorizing and other systems, including subsystems of morphological, terminological and semantic analysis.
- The technology of construction of the text interpretation automated systems is described.
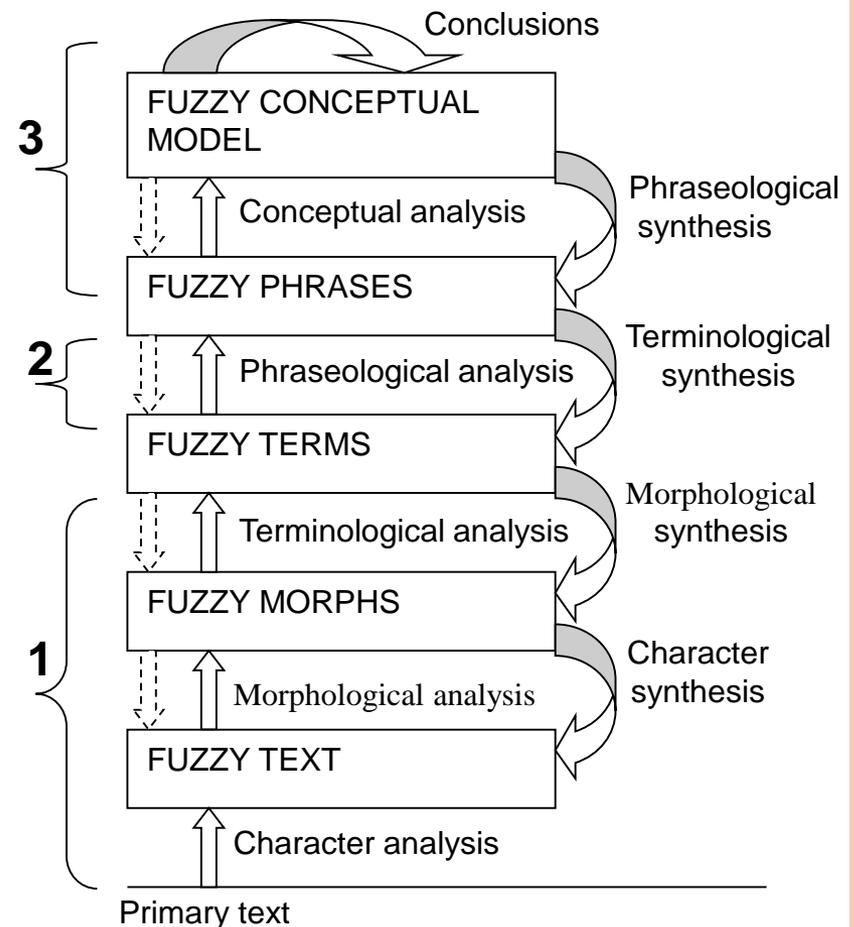
**Chart of the NL-text processing**:
1 – terminological marking
2 – eventful marking
3 – construction of context.

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# PROJECT OF AUTOMATED SYSTEM OF TEXT INTERPRETATION

text

module «*Text-to-Term*»

**KB** of terms

*Fuzzy terms*

converter

*Fuzzy phrases*

*Hybrid model* of knowledge presentation

module «*Term-to-Concept*»

Text Model «*context*»

Partition of the initial text on fragments (sentences, paragraphs)

Creation of e-documents catalogue.

*Categorization Systems*

**DB** of E-documents

Creation of the automated terminals in business processes.

Development of Intellectual Search Machines.

*Synthesis Systems*

*Search Systems*

«*Tetxt-Term-Concept*» SYSTEM

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