

## REVIEW

scientific advisor for dissertation work

**Smaiyl A. "Models and methods of intellectual information and training system", presented for the degree of Doctor of Philosophy  
PhD in the specialty 6D070300 - "Information Systems"**

Dissertation work of Smaiyl A.M. is devoted to solving an urgent problem in the field of information technology - the development of an intelligent information system for educational institutions using models and methods of semantic analysis. Smaiyl A. began her research activities in a bachelor's degree, continued in a master's degree, and later in a doctorate at the IITU. During all these stages, her educational, scientific and engineering interests lay in the field of ICT, namely in the development and creation of a system for educational institutions.

The work of Smaiyl Assel Maralbaikyzy is aimed at developing a system using models and methods of an intelligent information system based on semantic data representation, taking into account the peculiarities of the trajectory and individualization of the learning process. Within the framework of the study, the following main results were obtained:

- A review and analysis of the state of existing information systems in the field of education was carried out;
- Development of a methodology for constructing an educational resource based on semantic analysis;
- Establishment of the coefficient of semantic similarity of topics based on the hypothesis put forward;
- The location of the content is determined by the Microlearning method;
- - The result of an experimental study of the developed system shows an increase in the quality of training and efficiency due to the semantic representation of resources.

The theoretical and applied results obtained in this work can be used in the design and development of a system for information and training organizations. And also the obtained scientific results can be developed as a theoretical and applied basis for automating the learning process, taking into account the individual characteristics of each student (intellectualization).

The developed system using models and methods of an intelligent information and training system has been implemented in the university LLP "Astana IT University", which is currently actively used in teaching.

When performing dissertation work Smaiyl A.M. demonstrated a scientific mindset, high efficiency, initiative, responsibility, dedication, focus on real

results. It is important to note that Smaiyl A. has always strived for practical verification of the adequacy and significance of her theoretical results.

As a result of many years of systematic work, the applicant obtained important scientific and practical results presented in the dissertation. The main results of scientific research are presented in domestic and foreign publications, have been scientifically tested at international conferences.

Summing up, as a scientific consultant of the applicant, I can note that the results of many years of research work in the development of an intelligent information system presented in the dissertation are distinguished by originality, quality, adequacy, scientific and practical significance. The applicant is a mature competent researcher who is able to independently formulate and solve urgent problems in the field of information technology.

I believe that the presented dissertation work Smaiyl Assel Maralbaikyzy meets all the requirements for a doctoral dissertation (PhD), and its author, Smaiyl A.M. deserves to be awarded the PhD degree of Doctor of Philosophy in the specialty 6D070300 - "Information Systems".

Doctor of Technical Sciences,  
Professor



Kuandykov A.A.

