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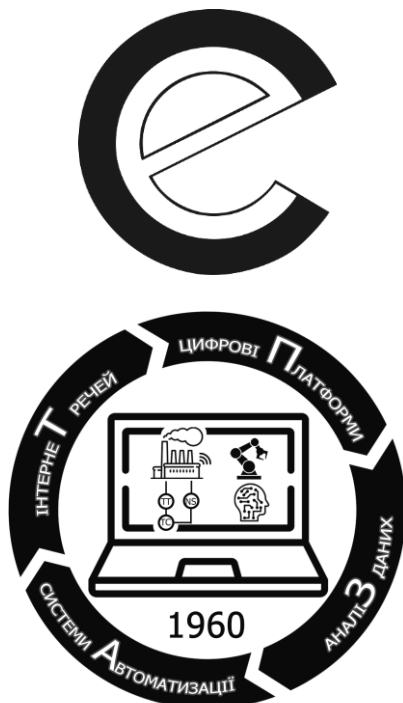
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МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
НАЦІОНАЛЬНИЙ ТЕХНІЧНИЙ УНІВЕРСИТЕТ УКРАЇНИ
«Київський політехнічний інститут імені Ігоря Сікорського»

Інженерно-хімічний факультет



КАФЕДРА
ТЕХНІЧНИХ ТА ПРОГРАМНИХ
ЗАСОБІВ АВТОМАТИЗАЦІЇ

**АВТОМАТИЗАЦІЯ
ТА КОМП'ЮТЕРНО-ІНТЕГРОВАНІ ТЕХНОЛОГІЇ – 2020**
VII МІЖНАРОДНА НАУКОВО-ПРАКТИЧНА КОНФЕРЕНЦІЯ
МОЛОДИХ УЧЕНИХ, АСПІРАНТІВ І СТУДЕНТІВ

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**THE METHODOLOGICAL ASPECT
OF THE DECISION SUPPORT SYSTEM IN THE PROBLEMS
OF TRAINING STUDENTS OF MEDICAL UNIVERSITIES**

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In the conditions of market competition, a modern student is required to apply the acquired knowledge, information and skills, both in the learning process and in further medical practice. It is almost impossible to achieve these goals without using teaching methods that would make students not passive listeners, but active participants in the learning process. Improving the correctness and quality of decision-making by students in the learning process leads to a reduction in the load on the teaching and auxiliary personnel, to the possibility of reducing the cost of fulfilling the function of collecting and processing data to make decisions about the students expulsion of from the university, as well as the acceptance of students for further training or work. The main characteristics of a modern graduate of a medical university are his ability to make right decision by choosing from a set of alternatives, competence, which will result in minimum costs and maximum therapeutic effect* .

The aim of the study is to develop a methodology for assessing the quality of education of students of medical universities, as well as an information decision support system that will evaluate and improve the effectiveness of education quality management.

The study covers the following issues:

– to develop a functional model for the organization of the education quality management process (and an algorithm for its implementation) for first and second year students studying in the Ukrainian language, disciplines Medical and biological physics and Medical informatics;

– create a data model of the information system for decision support to assess the quality of training of first and second year students studying in the Ukrainian language, disciplines Medical and biological physics and Medical informatics;

– to monitor student trajectories using surveys and analysis of statistical information in order to obtain relevant information on the characteristics of the student contingent and students' attitudes to learning, about the features and factors that affect the educational activities of students, about the features of the implementation of training programs. Monitoring involves the use of two types of data: survey and statistical, which will allow a comprehensive assessment of the processes taking place in universities.

* Chovpan I. Methods of determination of initial level of students' knowledges on basic disciplines at higher medical educational institutions / I. Chovpan, G. Chovpan, L. Batyuk // Journal ScienceRise: Pedagogical Education. 2017. Vol 5, No 13. P. 46–50. DOI: 10.15587/2519-4984.2017.102930.

To solve the tasks, methods of system analysis, mathematical modeling, and mathematical statistics, ethical and legal principles of information management in the education system were used.

The scientific novelty of the work is as follows:

1. The development of a functional model for organizing the process of managing the quality of education made it possible to analyze the disciplines of the curriculum and identify main indicators, which are a set of interrelated indicators of the quality of education;

2. A mathematical model is proposed for assessing the quality of education of first and second year students studying in Ukrainian language in the disciplines of Medical and Biological Physics, and Medical Informatics;

3. An algorithm for the implementation of the mathematical model is proposed, which allows continuous monitoring of the quality of education to be carried out on the basis of statistical data of the assessment received by the student and the processing of the results of monitoring the assimilation of knowledge by the student through a combination of methods of mathematical statistics;

4. A conceptual model and a data model of a decision support information system for assessing and monitoring the quality of students' training have been proposed, allowing to describe the organization of the education quality management process and visually present the data structure as part of the training of students of the Department of Medical and Biological Physics and Medical Information Science of our university on a logical level, and then develop the database at the physical level.

Methodology and information system can be used:

- when assessing and monitoring student performance;
- while improving the technology of training specialists in these disciplines;
- when introducing an education quality management system.

The theoretical and practical value of the research is determined by the scientific results obtained in the implementation of the tasks, their novelty and consists in the development of models and methods that allow for effective management of the educational process at the Department of Medical and Biological Physics and Medical Information Science in order to improve the quality of students' professional training and ensure streamlining, transparency, consistency and automation of processes for assessing the quality of education at a university.