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DEVELOPMENT OF SOFTWARE FOR AUTOMATING THE PROCESSES OF UNIVERSITY SCIENCE DEPARTMENT

Abstract. In the article the basic conception of software development for automating the processes of university science department is presented. The goal is to automate the process of collecting teachers' research papers, generating statistics by the portal the masters and doctors' works including monograph, books, methodical, normative, directive document, abstract of paper with certificate, information leaflet, article.

Key words: software development, automating the processes

Modern higher education institutions use tens or hundreds of PCs used in the educational process, or ensuring its holding. Information technology can significantly improve the efficiency of the use of computers. They allow you to create information systems to ensure effective management of the organization, the tasks of remote and automated learning, storage, document management, messaging and collaboration on projects. In this case, it is fundamentally important that the IP is constantly expanding and adding new components or the introduction of new technology should not require adjustment already working and functioning system. Because there are many ways to receive, transmit, store and present information in the process of creating a single information space of the university involved mass systems to realize this diversity and provide efficient information processing and timely delivery to consumers. Accordingly, the practical importance is the choice of university management model that allows not only fast enough to build a simple and effective information system, but also save the operating time at the first stage in the subsequent expansion and the transition to a more complex network models.[1]

In recent years, intensive reform and modernization processes in the field of education and science have been taking place in Russia and in Kazakhstan in particular. Currently, the "State Program for the Development of Education in the Republic of Kazakhstan for 2020-2025" is under implementation. [2]

The state program for the implementation of the language policy in the Republic of Kazakhstan for 2020-2025 developed in accordance with Articles 7, 93 of the Constitution of the Republic of Kazakhstan. The Law of the Republic of Kazakhstan dated July 11, 1997 "On Languages in the Republic of Kazakhstan". The Strategic Plan for the Development of the Republic of Kazakhstan until 2025, approved by Decree of the President of the Republic of Kazakhstan dated February 15, 2018 No. 636; Message of the First President of the Republic of Kazakhstan - Leader of the Nation N.A. Nazarbayev to the people of Kazakhstan dated December 14, 2012, "Kazakhstan-2050 Strategy: a new political course for the established state," and programmatic article dated April 12, 2017, "A look into the future: modernization of public consciousness"; Message of the Head of State KK Tokayev to the people of Kazakhstan "Constructive public dialogue - the basis of stability and prosperity of Kazakhstan" dated September 2, 2019. [2, 3]

The program determines the strategy, main directions, priorities, goals and mechanisms for implementing state policy in the field of education and serves as the basis for changes and additions to the legislation of the Republic of Kazakhstan, management and financing, structure and content. As well as educational systems, personnel and social policies. The development program is the need for fundamental reforms aimed at improving the quality of education, the strategic tasks facing the

education system in the new economic and socio-cultural conditions of Kazakhstan. One of the priorities is the automation of the activities of the state apparatus, educational and cultural institutions, and the acceleration of the implementation of the E-Government project.

Aim is to develop of software for automating the processes of University Science Department. Statistical data showed that the proportion of scientific research, master's and doctoral dissertations is very low. Relevance of the work is that it is necessary to increase the volume and quality of scientific information. In the scientific community, the works of scientists, the results of scientific research, including masters' and doctoral dissertations, especially in the field of natural and engineering sciences. The state language should become an effective tool for communication in the scientific community. [3]

Improving the effectiveness of university management can be decided and give the necessary socio-economic effect only when moving from local university management subsystem to an integrated automated information system.[4,5] Such an information system will cover various aspects of the educational process, automate administrative and financial activities and provide information support for decision-making in the scientific field of the university. [6] In the future, the implementation of AIS will be able to coordinate the activities of universities of the Republic of Kazakhstan, the integration of the information infrastructure of the International University of Information Technologies and educational information space. [7]

"IT Science" is an online portal that contains all information about the scientific or scientific and technical activity of the University. The portal will include the masters and doctors' works including monograph, books, methodical, normative, directive document, abstract of paper with certificate, information leaflet, article and so on. It is like a database that stores the all documents of science activities of the faculty with various degrees. There are several blocks of information that data distributed such as qualitative and quantitative indicators of scientific potential; the results of scientific and scientific-technical activities; cooperation with scientific organizations of near and far abroad. Additionally, the each block has the detailed information of date, author, and work.

The development and implementation of any information system in an organization of at least medium scale is a task of enormous complexity. This is due to the complex structure and complex business processes in the organization. The analysis of information obtained on the bases of the university model of Internet technology. The implementation of the model for the implementation of the task of comprehensive automation of the university. That is, it will be able to control a single (single window), a single paperwork between all departments of the university. It provides centralized data storage, the implementation of universal access to databases using Internet technology, sending messages, reports, e-mail notifications. [8, 9]

The effectiveness of the system is determined using its own products and technologies; a link to the most popular program - technical platforms named Microsoft); low cost of implementation. However, it should emphasized that IP is a tool for effective, high-quality management of the organization. The quality of university management depends primarily on the quality of professional managers and the entire team. It should be note that the university's development team is the information department. Their choice based on the fact that they are well aware of their specific business processes, their work on developing value is fairly inexpensive and guaranteed security. [10, 11]

REFERENCES

1. Halyna Mykhailyshyn, Oksana Kondur, Lesia Serman. Innovation of education and educational innovations in conditions of modern higher education institution. // Journal of Vasyl Stefanyk Precarpathian National University – 2018 - 9-16 P.
2. https://www.zakon.kz/5002441-utverzhdena-gosudarstvennaya-programma.html
3. https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazakhstan_premer_ministr_rk/hozyaystvennaya_deyatelnost/id-P1900001045/

4. Rita D. Zielstorff. Designing Automated Information Systems // Computers & Education. – 2012 – 14-24 P.
5. Gvozdeva, V. Theory of management of educational systems, Moscow. // Education Publishing, - 2011 - 452-596 P.
6. Burkov, V. Fundamentals of automated information systems, Moscow. // Publishing House "Forum" Infra – 2012 – 320-600 P.
7. Trahtengerts, E. Graph theory in managing organizational systems. Moscow. // SINTEG Publishing, 124. – 2012 – 188-256 P.
8. Novikov, D. Computer methods of implementation of economic and information management solutions. Moscow. // SINTEG Publishing – 2010 – 234 P.
9. Tukubaev, Z. Management of corporate programs: information systems and mathematical models. Moscow. // Satellite Company – 2010 – 154 P.
10. Richard M. Cyert. Management science and university management // New Directions for Higher Education – 2010 – 211 P.
11. Olena Grishnova, Nadiya Azmuk, O. V. Kuklin. Flexible technologies of university management as a tool to increase their competitiveness //Computers & Education. – 2010 – 52 P.

Кеңесова К. А., Маралова Е.Ш., Ислам А.Қ.
Ғылыми жетекші: Молдагулова А.Н.
Университеттің ғылым бөлімінің процестерін автоматтандыруға арналған бағдарламалық жабдықтама құру

Аңдатпа. Дипломдық жоба аясында профессорлық-оқытушылық құрам мен оның ғылыми қызметі туралы барлық ақпаратты қамтитын «IT Science» онлайн ғылыми порталы құрылды. Жобаның мақсаты - оқытушылардың ғылыми-зерттеу жұмыстарын жинау процесін автоматтандыру, құрылған онлайн портал арқылы әр жұмыс жасалған бағыт бойынша статистикалық мәліметтер алу. Аталған сайтқа оқытушы құрам өз ғылыми жұмыстарын, атап айтқанда монография, жинақ, әдістемелік, нормативтік, директивалық құжаттар, анықтама, реферат, ақпараттық парақ, мақалаларын жүктей алады.

Кілт сөздер: Бағдарламалық жабдықтама, ғылым бөлімінің процестерін автомат-тандыру

Кеңесова К. А., Маралова Е.Ш., Ислам А.Қ.
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Разработка программного обеспечения автоматизации процессов отдела науки университета

Аннотация. В статье представлена основная концепция разработки программного обеспечения автоматизации процессов отдела по науке университета. Цель состоит в том, чтобы автоматизировать процесс сбора исследовательских работ учителей, генерируя статистику порталом. Работы научно-преподавательского состава включает себя монографии, книги, методический, нормативный, директивный документ, в том числе реферат с сертификатом, информационный листок, статья.

Ключевые слова: разработка программного обеспечения, автоматизация процессов

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