

Авторами данной работы практически внедрены электромагнитные преобразователи первичного одно- и трехфазного тока во вторичное напряжение с расширенными функциональными возможностями и унифицированными выходными величинами, учитывающие несимметрию трехфазного тока обеспечивающие комбинированное управление реактивной мощностью.

ORGANIZATION AND TECHNOLOGY OF ELECTRONIC DOCUMENT MANAGEMENT IN AN EDUCATIONAL INSTITUTION

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The article talks about the implementation of workflow automation, the advantages and disadvantages, and the difficulties you may encounter. The article also refers to examples of implementation of workflow automation in educational institutions, examples of software products that are used.

Key words: *electronic document, office automation, information, educational institution, document management, computer network.*

ОРГАНИЗАЦИЯ И ТЕХНОЛОГИЯ ВНЕДРЕНИЯ ЭЛЕКТРОННОГО ДОКУМЕНТООБОРОТА В ОБРАЗОВАТЕЛЬНОМ УЧРЕЖДЕНИИ

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В статье говорится о внедрении автоматизации документооборота, рассматриваются преимущества и недостатки, трудности, с которыми вы можете столкнуться при автоматизации документооборота на предприятии. В статье также указываются примеры внедрения автоматизации документооборота в образовательных учреждениях, примеры программных продуктов, которые для этого используются.

Ключевые слова: *электронный документооборот, автоматизация делопроизводства, информация, образовательное учреждение, документооборот, компьютерные сети.*

Information has become a full-fledged resource in modern society. The quality of information determines by the quality of governance. To improve the efficiency of management it is necessary to give adequate attention to improvement of working with documents, as any management decision always reflected in the document

Documents are the source, result and instrument of the institution. Technology of work with documents is inextricably linked with the technology of the company's primary activities and involves not only common rules of documentation – design documents, but a single procedure for the organization of movement of documents (document management). In accordance with regulatory requirements document management of organization covers

the movement of documents from their receipt or creation to the completion of execution, send or delivery.

Well-organized document management reduces the time which is required to search, increases the accuracy and timeliness of information, eliminating redundancy.

One of the main problem of the traditional technology of document management is the practical impossibility to centrally monitor the movement of documents of the organization in real time. As it is requires a huge effort not only on keeping detailed logs and files in each unit, but also on a centralized operational information of the corresponding information. The lack of effective technologies of document management leads, as a rule, to is impossibility of saying what documents the institution works, what is the history and current status matter is exactly, what it is doing.

In the modern establishment the main technological tools of working with documents are the computers installed in the workplace of performers and networked. If a computer network covers all the jobs of the clerical staff in the structural units of the organization, it becomes possible to use the network to move documents and centrally monitor the progress of the record keeping process until the performers work on documents at their workplaces. However, today, the institution tries to buy high-performance personal computers which united in a local corporate network, providing full technological support of the "electronic document", but then there is not using of equipment to prepare the document in a text editor, and then printing it on the printer.

Problems consist of the process of transition to electronic document, which in our country, in our view, fraught with many difficulties. Briefly describe them:

Complete elimination of paper documents is impossible because of the conservatism, unwillingness to be trained and retrained, fear of transparency of activity to guide that occurs after the implementation of electronic document management system. On the other hand, the lack of trust to electronic documents requires a paper original of any important document even when the electronic versions exist. Today's office standards do not take into account the peculiarities of work with electronic documents. There is no single technical policy and methodology, including in the area of clerical work. Existing systems do not allow to change the schema of processing and structure of information stored in them without the threat of data loss.

The solution of document management will provide to form information resources of the organization, to ensure their effective functioning, as well as open access to consumers to information resources with the least expenditure of time, labor and expense. Nowadays, the automation of the process also is needed, as automation of any control functions, such as accounting. First, information must be processed as quickly as possible and better,

sometimes the flow of information is no less important than material. Secondly, loss of information or it getting into the wrong hands can cost very expensive. The problem of introduction of electronic documents was announced in 2012 by the President of the Republic of Kazakhstan at the meeting with the Akims (the head of the local authority) of all levels. Speaking at the meeting, the President was troubled by the fact that teachers and health workers fill multiple documents, without having time to fully perform their duties.

"Where is electronic document management? Let the doctors heal, teachers to teach, not to fill papers" [3].

Office automation provides a complete user experience, of management business process, supporting of life cycles and versions of documents, dynamic management of access rights. The using of the automated system of document management will enhance the efficiency and quality of processing and storage of documents will speed up and simplify the decision-making process, will improve the effectiveness of organizational-administrative activity. Consider some of the programs used for automating the workflow of institutions. The decision "Namep: UNIVERSITY Document management" is embedded in "Nazarbayev University"

As a scientific and technological leader of education in Kazakhstan, "Nazarbayev University" is committed to strengthening its position through the introduction of best management practices of internal processes of the University. The solution of this problem requires the creation of a single information space of the University-based electronic document management system.

As a tool of automation of the basic directions of interaction and work with documents solution was chosen on the basis of SED DIRECTUM "Namep: UNIVERSITY Document management", tailored to the specifics document flow in universities. The decision has already been successfully implemented in one of the largest innovative universities of Russia – Moscow Institute of steel and alloys (MISIS) and in the Kazakh National University al-Farabi. The management of "Nazarbayev University" welcomed the expertise of the Department of EDO, allowing taking into account the highest requirements of the University during project implementation and deploying in a short time.

The main objective of the project was the organization of works on creation and approval of documents in electronic form of all divisions of the University, as well as the implementation of collective work with them and generates reports in different sections. For the comfortable interaction of teachers with foreign colleagues from foreign universities "Namep: UNIVERSITY Document management" allows to set up an English interface. The project also envisages integration "Namep: UNIVERSITY Document management" system of educational process management, enterprise portal and system 1C [2].

Also one of the most useful software products for the automation of workflow is a software product Microsoft SharePoint [1]. It is an integrated

Suite of enterprise applications that is designed to increase productivity, organization, collaboration between employees, considering these important business objectives, such as: control of information flows, making- decision and workflow management. In product there is a focus on the social component, the cloud and mobility. Microsoft SharePoint 2013 offers new tools for simple administration, effective protection of communication and information and flexible collaboration. Social features make it easy to share ideas, keep track of the actions of colleagues, find experts and information. Advantages: good technical support, the configurability of the software product Windows. Disadvantages: high cost of implementation, lack of cross-platform.

Another product that we would like to note is Detrix [2]. It refers to free software, but supporting, maintenance and consulting are paid. Developed by a community of programmers around the world, including Kazakhstan. Advantages: low cost, cross-platform, designed to Kazakh standards reference document. Disadvantages: lack of technical support (for free use), insufficient study of the program by itself.

The above software products because of there are shortcomings unacceptable for using for institution. Therefore, we have decided to develop your own software product for accounting of incoming and outgoing documentation.

As a result of functioning of the information system of the account of incoming and outgoing documents, economic efficiency of work of the institution. Is increases efficiency is saving money spent on the purchase of paper supplies for copiers, office supplies.

Literature

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ЭНЕРГОИНФОРМАЦИОННЫЕ МОДЕЛИ ЦЕПЕЙ ВЛАГОПЕРЕНОСА И ДИФфуЗИОННОЙ ЦЕПИ ДЛЯ СИНТЕЗА БИОСЕНСОРОВ

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Энергоинформационный метод моделирования позволяет показать взаимодействие процессов различной физической природы в биосенсоре введением физико-технических эффектов, связывающих величины одной физической природы с величинами или параметрами другой физической природы, а также предложить структурно-формализованное описание возможных вариантов принципа действия биосенсора в виде параметрических структурных схем, каждое звено которых