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THE SYSTEM OF AUTOMATED DOCUMENT CIRCULATION MANAGEMENT OF ACADEMY COUNCILS

The models of automated document circulation management of academic, methodical and pedagogical councils in higher institutes of education have been developed. The models, which are implemented in the interactive software system, provide a choice of work system modes and the possibility of remote user access with the support of authorization rights.

Key words: automation, document circulation management.

Introduction

The system of automated document circulation management of academy councils – is the system, which consists of a set of means for automation of the processes of methodical documents: agenda, decision making, protocols, registering present participants, etc.

The importance of development of such systems is determined by modern demands for increasing document management efficiency and implementing search processes.

The aim of this work is automation of document circulation management processes in academy councils.

The object of this research is the automation processes of document formation and implementation of search functions in the systems of automated document circulation management.

The general tasks of the given work are the development of the models for the system of automated documents management and the algorithms of their implementation on the basis of the system of automated documents circulation of the magistracy, post-graduation and doctoral institute (MPDI) of the Vinnitsa national technical university (VNTU).

1. The development of the models of the system of automated document circulation management

The computer system of document management of academy councils provides automation of the processes of document formation, work with databases, implementation of the search function [1, 2]. The system provides workability of the modes performing functional obligations of the Council, members and the administrator, what, in its turn, requires the development of additional means for user authorization.

System-defined authorization is accomplished by complex user identification, according to the level of access rights, obtained from the function y_1 (fig. 1), which is defined by the module of authorization of the general automated MPDI forum system. The input function y_2 (fig. 2) provides the means of information input to the database of the system through software capabilities implementation of the graphical interface.
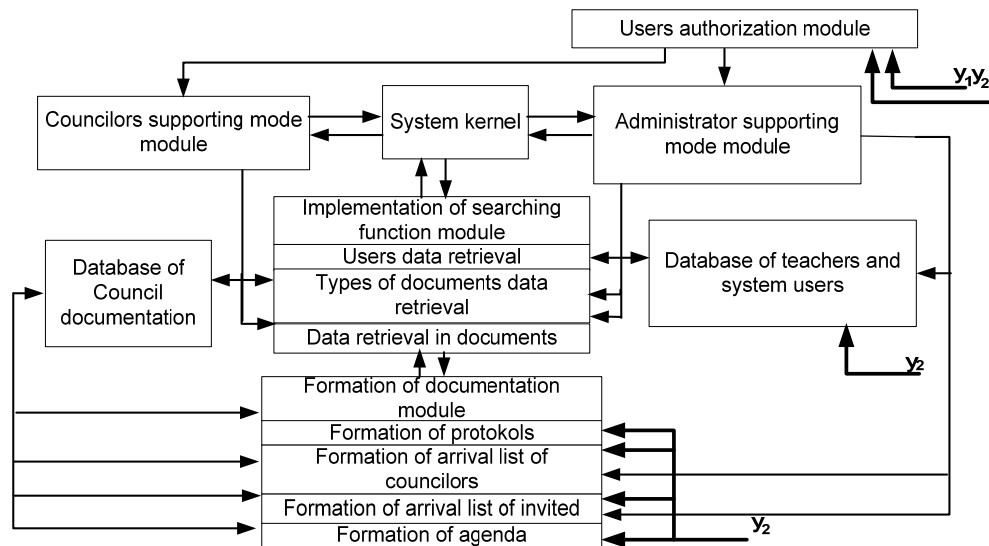
Fig. 1. The general model of the system of automated documents circulation management of academy councils

The process of defined work modes support requires a preliminary analysis and working out in detail a linguistic set of obligations and functional capabilities of users of the system of automated documents circulation management (fig. 2).
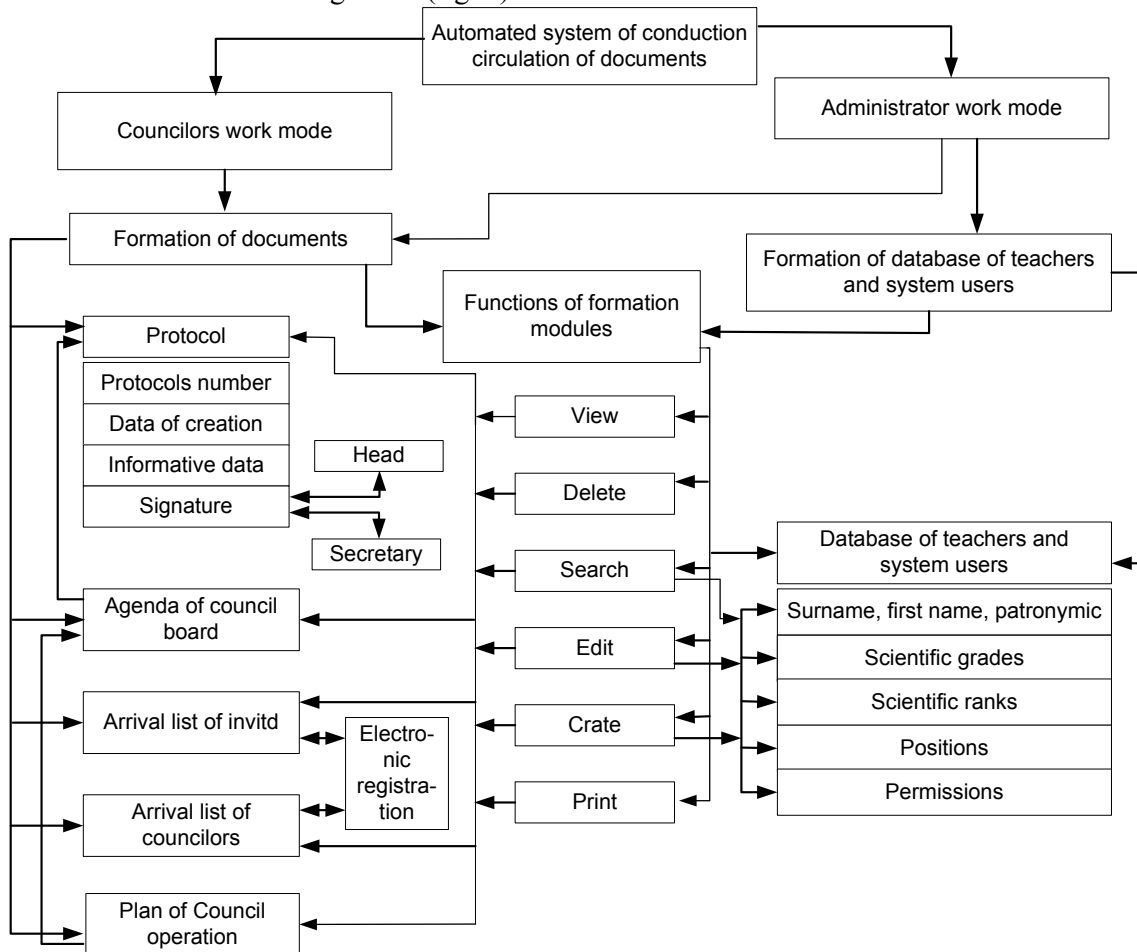
Fig. 2. The model of functional capabilities distribution of system users work modes

The development of the system of automated documents circulation management of VNTU

councils requires the implementation of elaborated models in the autonomous module "Council" of the general interactive MPDI system of documents circulation, which provides the possibility of user access in local and in network modes using Internet-resources and the means of MPDI forum identification.

2. The implementation of council members work mode

Fig. 3. Authorization in the "Council" system

Work of the system "Council" starts from the use of user uthorization through entering his/her login name and password (fig. 3).

The software interface of Council members implements the representations of identification means of system users and the type of chosen Council provides the possibility to chose the language of communication, access to the menu of the implementation means of functional capabilities of the system and helps determine working tasks, exit from the system (fig. 4).

Fig. 4. Software interface of councilors

Fig. 5. Window of protocol edition

Choosing the field "Protocol number" allows a user to look through and, under the condition of appropriate rights presence, to edit the user profile. The field "Actions" provides selection and implementation of general functions, working with Academic Council protocols.

The function "Edit" provides the possibility to edit the text of created protocols. The protocol edit window is supplied with the means of saving added text and deleting the chosen protocol (fig. 5).

Choosing the function "Formation of arrival list" shows the template of registration list of present councilors (fig. 6). The function "Formation of arrival list of invited" provides the opportunity of registration of present guests at the meeting of the Academic Council.

Selecting the field "Agenda" implements the representation from the agenda form database for consideration of the appointed Academic Council meeting (fig. 7). The list viewing modes of planned reports, editing of text information, deleting or adding chosen records are provided in the form. The function "Print" correspondingly provides the possibility of printing protocol text.
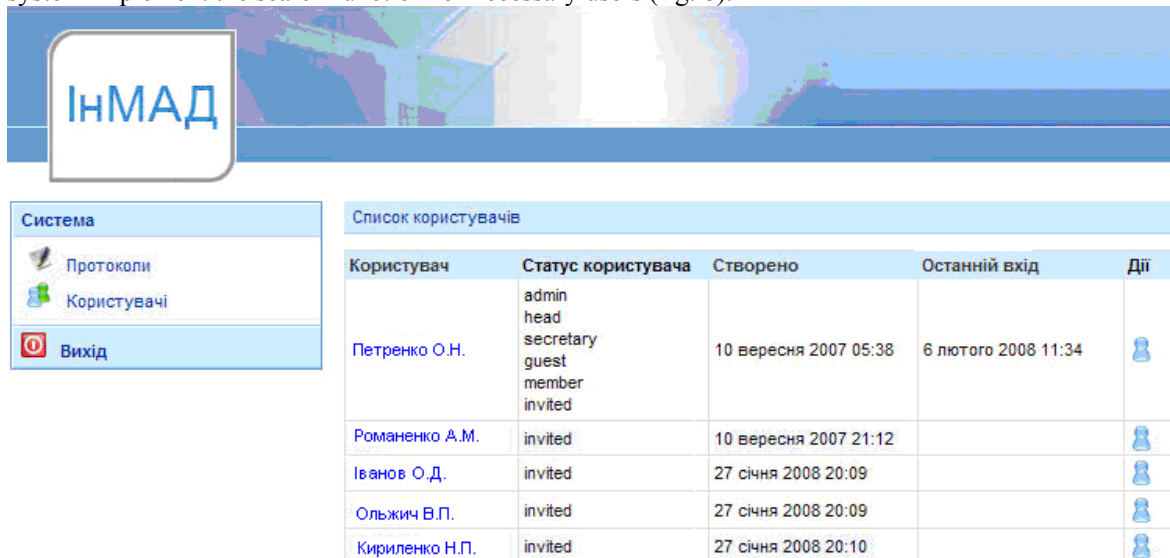
Fig. 6. Form of arrival list of invited

Fig. 7. Form of agenda of Academic Council board

Transition to the menu "users" allows a user to review the list of registered participants in the table with the fields: "User", "User status", "Created", "Last entry", "Actions". The presence of corresponding rights provides with opportunity to edit user profile by means of its selection by the name in the "User" field. Selection field "Actions" provides the only mode for viewing selected user profiles. In addition, the means of automated system implement the search function for necessary users (fig. 8).
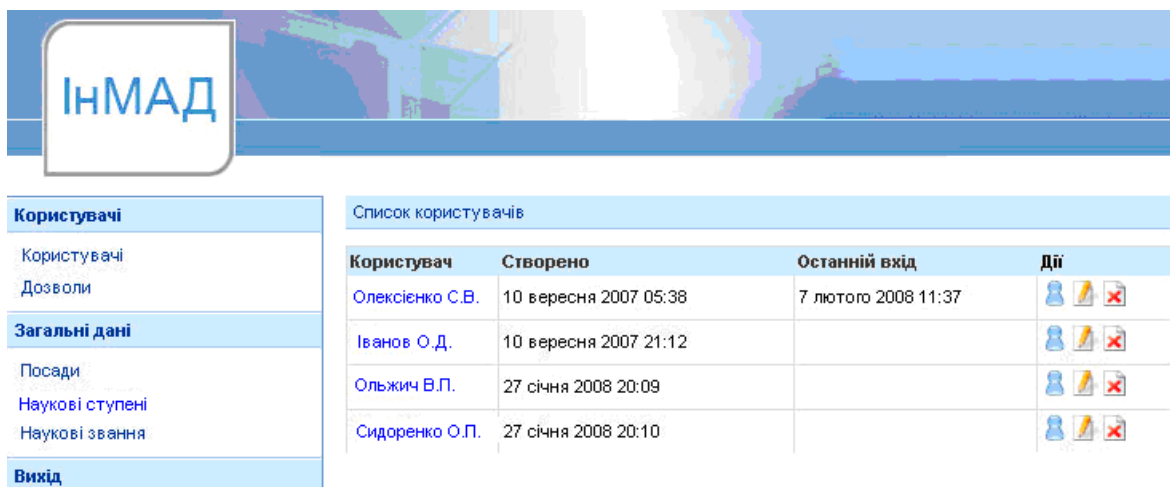
Fig. 8. Interface of "Users" menu

3. The implementation of the system administrator work mode

The access to the administrator work mode demands to conduct user authorization. The administrator is eligible to amend and adapt the councilors work mode (fig. 9).

Fig. 9. Interface of the major page of the administrative part of the system

The menu items are located for the creation and new user identification of the system on the left side of the major page of administrator interface form with assigning the defined rule set to them ("Users", "Permissions", "Positions", "Scientific ranks", "Scientific grades", "Exit"). In the central part of the form the list of present users is shown and the searching-identification functions are implemented systematically.

Selecting the menu item "Users" provides with the opportunity of creating a new user and editing the profiles of present councilors. The process of creating a new user requires to define his/her login name and password, establish permission rights, correlate the user with selected groups and specific councils (fig. 10).

Fig. 10. The window form for new user creation

The menu item "Permissions" implements the administrative opportunity of setting the access rights for newly created users from the given permission list (fig. 11).

Fig. 11. Identification of newly created users though the selection of the group and appropriate permission rights set

The administrative menu items "Positions", "Scientific grades", "Scientific ranks" are intended for inputting and editing the councilor positions list.

The implementation of the system of automated documents circulation, as a self-contained module of the interactive system of documents circulation in MPDI, enables the authorization of users of the software module "Council" at the expense of using the authorization means of the general automated system of Forum InMPD of the Vinnitsa national technical university.

Conclusion

The developed automated system of documents circulation management of academy councils is directed at the automation of formation and edition processes of the Council official documentation with the supply of different work modes at the expense of identified access rights of specific users. The models of the automated system were implemented structurally on the basis of interactive software complex of document circulation management of MPDI in the Vinnitsa national technical university, which gives the opportunity of local and network selection work modes and provides the implementation of remote user access using Internet resources.

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