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of Food Technologies*



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Information Technology, Automation and Robotics

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Odessa National Academy of Food Technologies, 2021

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INFORMATION AND ANALYTICAL RESOURCE OF THE SCIENTIFIC JOURNAL " PROBLEMS OF INFOCOMMUNICATIONS»

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Abstract. *The article is dedicated to the development of an electronic information-analytical resource for the automating evaluation process, selection and publication of articles in the scientific journal "Problems of infocommunications".*

Keywords: *information-analytical resource, scientific journal, web-development, information system.*

INTRODUCTION

Since 2015 the scientific journal "Problems of infocommunications" has been approved by "Belarusian state academy of communications", which is intended for publishing materials of scientific and practical studies of researchers, teaching staff, students, graduate students and postgraduates, as well as specialists working in the field of telecommunications and postal services.

The journal publishes materials, which are related to the following fields of knowledge:

1. Digital Communications
2. Computing Systems and Networks
3. Information Security
4. Communication Technologies
5. Radio Engineering and Electronics
6. Cyberphysical Systems
7. Economics and Management in the Telecommunications Industry
8. Postal Services.

Currently, there is a need for information systems, which allow to automate not only routine operations, but also the process of selecting and reviewing articles in scientific journals. Therefore, the relevance of the development and implementation of information-analytical systems is beyond doubt. The purpose of our work is to develop an information-analytical resource of the scientific journal "Problems of Infocommunications".

OBJECT, SUBJECT, AND METHODS OF RESEARCH

The electronic resource of the scientific journal "Problems of Infocommunications" allows to automate and visualize the process of accepting, reviewing and selecting the articles for further publication in the scientific journal "Problems of Infocommunications".

The information-analytical resource of the scientific journal "Problems of Infocommunications" has been developed to implement the following functions:

- creation and maintenance of a database of articles, authors, and reviewers;

- registration/authorization of authors/reviewers;

Table 1. Users' permissions

| Users' permissions | Author | Reviewer | Editor | Administrator |
|---|--------|----------|--------|---------------|
| General | | | | |
| Authorization | + | + | + | + |
| Identity change | + | + | + | + |
| Logout | + | + | + | + |
| Account deletion | + | + | + | + |
| Contacting technical support | + | + | + | + |
| Communication with developers | - | - | + | + |
| Reviewer | | | | |
| Request for the "Reviewer" role | + | - | - | - |
| Approval of the application for the "Reviewer" role | - | - | - | + |
| Demoting a user with the "Reviewer" role | - | - | - | + |
| Viewing users with the "Reviewer" role | - | - | - | + |
| Assigning a reviewer to an article | - | - | - | + |
| Article review | - | + | - | + |
| Article | | | | |
| Article placement | + | + | + | + |
| Amending article | + | + | + | + |
| Deleting an article | + | + | + | + |
| Viewing my articles | + | + | + | + |
| Viewing articles on reviews | - | + | + | + |
| Viewing articles | - | - | + | + |
| Viewing all articles by publication code | - | - | + | + |
| Article assessment | - | - | + | + |
| Approval of an article for publication | - | - | - | + |
| Refusal to publishing the article | - | - | - | + |
| Notifications | | | | |
| Notifications via the internal service | + | + | + | + |
| Notifications via Telegram | + | + | + | + |
| Categories and subcategories | | | | |
| Category adding | - | - | + | + |
| Subcategory adding | - | - | + | + |
| Category editing | - | - | + | + |
| Subcategory editing | - | - | + | + |
| Category removal | - | - | - | + |
| Subcategory removal | - | - | - | + |

- submission of articles;

- review of articles;
- feedback.

In the project users are divided by roles. The most important role is the "Administrator" role, which has all the functionality and rights inside the system.

The newly registered user is assigned the "Author" role.

The assignment of the "Reviewer" role is carried out by submitting an application in the required section and approving it for the reviewer role by a user with the "Administrator" role. A user with the "Reviewer" role can be approved or demoted by a user with the "Administrator" role only.

The "Editor" and the "Administrator" roles cannot be assigned with the help of the functionality of the resource. There is an individual instruction for assignment, which is carried out via the software support service of the resource.

All users' permissions are shown in table 1.

The user of the resource has the right to change personal data, track sessions and terminate the account activity, through the personal account.

The user is given the option to view the "User Manual".

During authorization, the user gets to the page of the electronic resource presented on Figure 1.

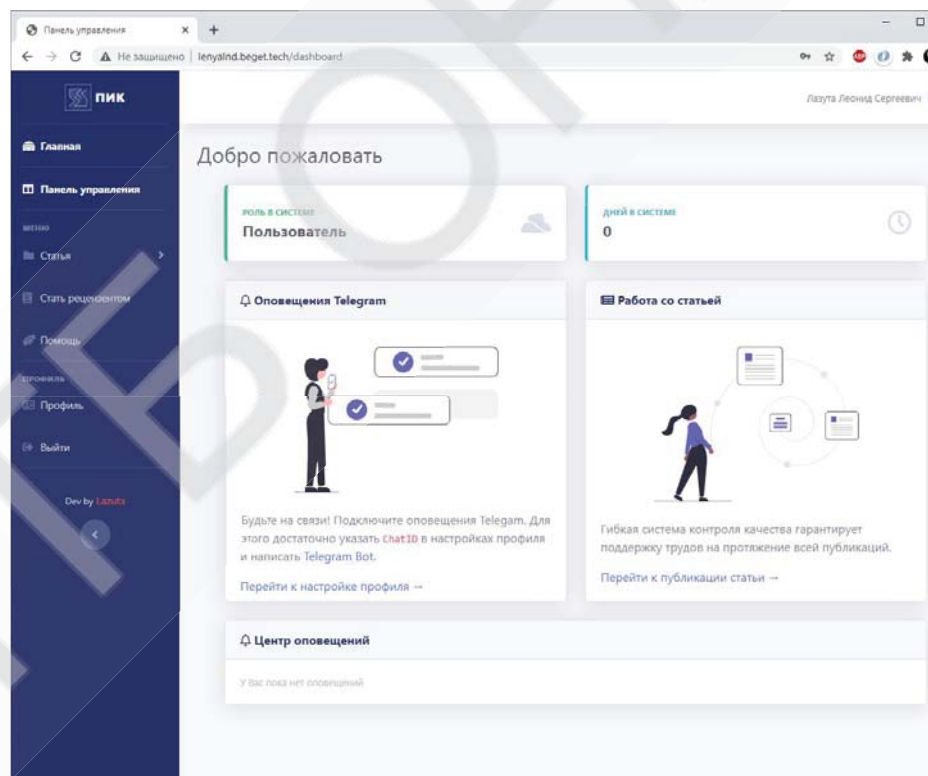


Figure. 1. Control panel

The electronic resource of the scientific journal "Problems of Infocommunications" is designed on the basis of the Laravel 8 Framework. The server part is implemented on PHP and includes the use of the Model-View-

Controller design pattern, internal and external notification systems via Telegram APIs.

The security of personal data is ensured by the encryption of confidential data and the use of the enhanced security protocol https. All the data is stored in MySQL database.

The client part is written in JavaScript, HTML5, CSS using Bootstrap 5 components and is based on Laravel Blade Comments and Laravel Jetstream technologies, which allow to organize a component approach to the design of the visual elements of the project.

The electronic resource of the scientific journal "Problems of Infocommunications" has a Telegram Chat Bot, through which the process of an external notification system is carried out. Telegram Chat Bot is written in Ruby using the Telegram Bot Ruby library.

For the correct work of the electronic resource, the following software requirements are needed:

- server part: Apache 2.4 web-server; PHP 5.6.30; MySQL 5.5.58 DBMS.
- client part: any of the following browsers (latest versions) with the JavaScript interpreter enabled: Mozilla Firefox; Opera; Google Chrome, Safari.

CONCLUSION

Thus, the information-analytical resource of the scientific journal "Problems of Infocommunications" has been developed, which allows you to automate the work of the Academy staff in the process of selecting and publishing articles in the scientific journal, and provides authors with a convenient tool for submitting and reviewing articles.

So far, the electronic resource of the scientific journal "Problems of Infocommunications" has been launched into the stage of pilot operation.

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The collection includes student works of the participants of the competition, which were not included in the number of prize-winners. The texts of the competitive works are published in the form in which they were submitted by the authors. The authors of the articles are responsible for the content and form of submission of the material.

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